

EPA Registration No.
70051-107
vol. 2

Cerrelli, Susanne

From: Dively, Chris [cdively@certisusa.com]
Sent: Monday, July 15, 2013 3:31 PM
To: Cerrelli, Susanne
Cc: Dively, Chris
Subject: DN LC containerhandling headers
Attachments: 20130715152155243.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Susanne,
Welcome back...hope your vacation was relaxing and fun!

In looking at the stamped label for CX-9032, it appears that the container handling heading for "for containers less than 5 gallons" was not on this version of the label (we submitted an updated version on April 24) and Kimberly had requested that we add this text. I have attached the pertinent page and I have talked to Kimberly and she agreed to just replace the page with the attached page.

Sorry for the confusion...I should have been more clear. I just want to make sure that this page is in the final stamped label for CX-9032 that is on PPLS.

Thanks and please let me know if there is an issue with this change. The actual text on the approved label is correct per the PR Notice 2007-4; Kimberly just suggested that we use the beginning text because we used "for containers greater than 5 gallons" as a type of header for the larger container sizes, but no type of "header" for the less than 5 gallons size.

Kind Regards,
Chris

-----Original Message-----

From: scanner@certisusa.com [<mailto:scanner@certisusa.com>]
Sent: Monday, July 15, 2013 3:22 PM
To: Dively, Chris
Subject: Message from "Exec-Copier"

This E-mail was sent from "Exec-Copier" (MP 3352).

Scan Date: 07.15.2013 15:21:54 (-0400)
Queries to: scanner@certisusa.com

2. Drench the roots of transplants with approx. 4 fluid ounces of the mixture immediately before transplanting into pots or garden soil. Allow to soak into the root ball before transplanting.
3. For outdoor-grown plants, use a watering can or sprayer to drench the soil in the planting furrow or transplant hole immediately before planting or transplanting. The amount of water required will depend on the size of the hole or length of furrow.
4. Alternatively, apply in the first watering after planting or transplanting, either by mixing directly into the water at the rate indicated above, or by spraying onto the soil surface at the base of each plant and immediately watering in with a watering can, hose, sprinkler, or other watering device.

CX- 9032 can be applied up to and including the day of harvest.

For application to lawns and other grass areas: Mix 1 teaspoon of CX- 9032 per gallon of water and apply as a fine spray to the surface of the lawn or grass area. Total amount of mix required will depend on the type of sprayer used and area to be covered, but typically 2 to 5 gallons of spray mix may be required per 1,000 square feet of lawn. CX- 9032 can be "watered in" for control of soilborne root and crown diseases by thorough watering immediately after application either with sprinklers or by spraying just before or during light rain.

STORAGE AND DISPOSAL

PESTICIDE STORAGE:

Keep in original container. Store away from direct sunlight, feed, or foodstuffs. Keep container tightly sealed when not in use.

PESTICIDE DISPOSAL AND CONTAINER HANDLING

Non-refillable container. Do not reuse or refill container.

-for containers equal to or less than 5 gallons-

If empty:

Place in trash or offer for recycling, if available.

If partly filled:

Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

For containers greater than 5 gallons-

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat the procedure two more times.

Then offer for recycling, if available, or puncture or dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Material Sent for Data Extraction

Reg. # 70051-107

Description: Label amendment

☒ Material(s) Sent to Data Extraction Contractors:

☒ New Stamped Label Dated 5/16/13

☐ Notification Dated _____

☐ New CSF(s) Dated _____

☐ Other: _____

☒ Decision #: D473992

☐ Other Action/Comments: _____

File this coversheet and attached materials in the jacket. It must be well organized and clipped together, NOT STAPLED. Then give the jacket with the coversheet and materials to staff in the Information Services Center (ISC) (Room S-4900). If a jacket is full or only available as an image, please file materials in a new jacket and bring it down to the (ISC). For further information please call 703-605-0716.

Reviewer: Susanne Corrali

Phone: 308-8077 Division: BPPD

Date: 5/29/13

Cerrelli, Susanne

From: Dively, Chris [cdively@certisusa.com]
Sent: Monday, May 20, 2013 4:12 PM
To: Cerrelli, Susanne
Cc: Dively, Chris
Subject: FW: Message from "Exec-Copier"
Attachments: 20130520160016829.pdf

Susanne,

Per your request, I have revised the active ingredient declaration in CSF column #10 to include the CFU/g so that it is consistent with the label declaration.

We will find the MSDS and send them to you for the alternate supplier of the tow inerts in question if you need them.

Thanks and hope that you daughter is definitely feeling better!

Chris

-----Original Message-----

From: scanner@certisusa.com [<mailto:scanner@certisusa.com>]
Sent: Monday, May 20, 2013 4:00 PM
To: Dively, Chris
Subject: Message from "Exec-Copier"

This E-mail was sent from "Exec-Copier" (MP 3352).

Scan Date: 05.20.2013 16:00:16 (-0400)
Queries to: scanner@certisusa.com



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY 16 2013

Christine A. Dively
Certis U.S.A., L.L.C.
9145 Guilford Road, Suite 175
Columbia, MD 21046

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

RE: Revised Label for CX-9032
EPA Reg. No.: 70051-107
OPP Decision Number: D473992

Dear Ms. Dively:

The Agency has reviewed your request to amend the CX-9032 label to update the crop listing to add corn, cereal grains, sugar beets and oilseed crops, to add seed production at specified sites, and to update the container handling statements.

The label amendment referred to above, submitted in connection with registration under section 3(c)(7)(A) of the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable provided that you:

1. Submit and/or cite all data required for registration of your product under FIFRA section 3(c)(5) when the Agency requires all registrants of similar products to submit such data.
2. Submit two (2) copies of the final printed labeling prior to releasing the product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA § 6(e). Your release for shipment of the product bearing the amended labeling constitutes acceptance of these conditions. If you have any further questions regarding this, please do not hesitate to contact Susanne Cerrelli, at 703-308-8077 (cerrelli.susanne@epa.gov).

Sincerely,

Kimberly Nesci
Chief
Biopesticides and Pollution Prevention Division
Microbial Pesticides Branch (7511P)

Enclosure

CONCURRENCES								
SYMBOL ▶	7511P	7511P						
SURNAME ▶	<i>[Signature]</i>	<i>[Signature]</i>						
DATE ▶	5/16/13	5/16/13						

ACCEPTED

MAY 16 2013

Under the Federal Insecticide, Fungicide,
and Rodenticide Act, as amended, for
the pesticide registered under
EPA Reg. No. 70051-107

MASTER LABEL
SUBLABEL A: Agricultural Use

CX-9032

(alternate brand names: Amylo-X, Double Nickel LC)

Aqueous Suspension Biofungicide/Bactericide

FOR ORGANIC PRODUCTION



Active Ingredient:

Bacillus amyloliquefaciens strain D747* 98.85 %

Other Ingredients 1.15%

Total 100.00%

*Contains a minimum of 1×10^{10} colony-forming units (cfu) per milliliter

EPA Reg. No. 70051-107

EPA Est. No. 70051-CA-001

Manufactured by: Certis USA, L.L.C.

9145 Guilford Rd., Suite. 175

Columbia, MD 21046

NET CONTENTS: 2.5 Gallons

Lot No.:

See Inside Panels for Additional Precautionary Statements

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID

IF ON SKIN: Take off contaminated clothing. Rinse skin with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

IF IN EYES: Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

Have the product label with you when calling a poison control center or doctor.
Hot Line No.: 1-800-255-3924 for additional information

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS & DOMESTIC ANIMALS

CAUTION

Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with eyes, or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco and using the toilet.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks
- Mixer/loaders and applicators must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

Follow manufacturer's instructions for cleaning and maintaining PPE. If no instructions are available, use detergent and hot water for washables. Keep and wash PPE separately from other laundry.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides, the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

Users should:

- Remove clothing/PPE immediately if pesticides get inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

For Terrestrial Uses: Do not apply directly to water or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate. Do not apply when weather conditions favor drift or runoff from treated areas.

GENERAL INFORMATION

CX-9032 is a broad-spectrum preventative biofungicide/bactericide for control or suppression of fungal and bacterial plant diseases. The active ingredient of CX-9032 is a naturally occurring strain (D747) of the beneficial bacterium *Bacillus amyloliquefaciens*. CX-9032 also colonizes plant root hairs, preventing establishment of disease-causing fungi and bacteria.

CX-9032 can be applied alone or in combination and/or rotation with chemical fungicides as a tool for integrated disease management in agricultural crops, ornamental and nursery plants, and turfgrass. CX-9032 offers a valuable tool for management of resistance to chemical fungicides through its multiple and unique modes of action.

CX-9032 can be applied up to and including the day of harvest.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted entry intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water is: coveralls, waterproof gloves, shoes plus socks.

Exception: If the product is soil injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

MIXING AND HANDLING INSTRUCTIONS

Mix the required amount of CX-9032 in water with sufficient agitation to maintain a uniform suspension in the spray or mixing tank. Tank should be cleaned prior to use. Do not use highly alkaline or highly acidic water to mix sprays. Use a buffering agent if necessary to maintain neutrality (pH 6 to 8) of water in the tank. Maintain agitation during application. Apply immediately after mixing; do not allow spray mix to stand overnight.

CX-9032 can be mixed and used with other agricultural chemicals for which such mixing is permitted by the product labels, in accordance with the most restrictive of those label limitations and precautions. If such a mixture is planned, a compatibility "jar test" should first be conducted by mixing the correct proportions of CX-9032 and these products in a small volume of water.

APPLICATION METHODS

Ground: CX-9032 can be applied in most commonly-used ground application equipment, such as (but not limited to): tractor-mounted boom, airblast, high clearance, hose-end, backpack, and

other pressurized sprayers; hose-end or hand-held sprayers; foggers or mist blowers; water wheel and other drench applicators; and shank or other soil injection method.

APPLICATION METHODS (cont.)

Aerial: CX-9032 can be applied by fixed or rotary winged aircraft in a minimum of 3 gallons of water per acre. Standard precautions should be taken to minimize spray drift.

Chemigation: CX-9032 can be applied through drip (trickle) and sprinkler type irrigation equipment. Refer to the section entitled "Chemigation Instructions" for detailed instructions.

Agricultural crops

CROPS	DISEASES/PATHOGENS (See footnotes for additional information)
Vegetables and melons:	
Brassica vegetables such as broccoli, cabbage, cauliflower, Brussels sprouts, kohlrabi, and other cole crops. (including those grown for seed production).	Pin rot complex (<i>Alternaria/Xanthomonas</i>)* Leaf spots (<i>Alternaria</i> spp., <i>Xanthomonas</i> spp.) Downy mildew (<i>Peronospora</i> spp.) Powdery mildew (<i>Erysiphe polygoni</i>) "Damping off," seedling blights, and root or crown diseases caused by <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Phytophthora</i> , or <i>Verticillium</i> * spp. (see instructions below for "Soil application").
Bulb vegetables such as onions, garlic, shallots, and others. (including those grown for seed production).	<i>Botrytis</i> spp. (neck rot, leaf blight) Purple blotch (<i>Alternaria</i> spp.) Downy mildew (<i>Peronospora</i> spp.) Powdery mildew (<i>Erysiphe</i> spp.) Rust (<i>Puccinia porii</i>)* "Damping off," seedling blights, and root or crown diseases caused by <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Phytophthora</i> , or <i>Verticillium</i> * spp. (see instructions below for "Soil application").
Cucurbits such as cucumbers, squash (all types), cantaloupes, muskmelons, watermelons, and other melons. (including those grown for seed production).	Powdery mildew (<i>Erysiphe</i> and <i>Sphaerotheca</i> spp.) Downy mildew (<i>Pseudoperonospora</i> spp.) Gummy stem blight (<i>Didymella bryoniae</i> and <i>Phoma cucurbitacearum</i>) See instructions below for "Soil application" against the following diseases: Vine decline (<i>Monosporascus cannonballus</i>) ** Charcoal rot (<i>Macrophomina phaseoli</i>) ** "Damping off," seedling blights, and root or crown diseases caused by <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Phytophthora</i> , or <i>Verticillium</i> * spp.
Fruiting vegetables such as tomatoes, peppers, eggplant, tomatillo, okra, and others. (including those grown for seed production).	Bacterial spot (<i>Xanthomonas</i> spp.)* ¹ Bacterial speck (<i>Pseudomonas syringae</i> pv. <i>tomato</i>)* ¹ Gray mold (<i>Botrytis cinerea</i>) Powdery mildew* (<i>Leveillula</i> , <i>Oidiopsis</i> , <i>Erysiphe</i> , and <i>Sphaerotheca</i> spp.) Early blight (<i>Alternaria solani</i>)* Late blight (<i>Phytophthora infestans</i>)* See instructions below for "Soil application" against the following diseases: "Damping off," seedling blights, and root or crown diseases caused by <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Phytophthora</i> , or <i>Verticillium</i> * spp. Southern blight (<i>Sclerotium rolfsii</i>)* and **
Leafy vegetables such as head and leaf lettuce, celery, spinach, radicchio, arugula, watercress, and others (including leafy <i>Brassica</i> vegetables such as mustard and collard greens, kale,	Downy mildew (<i>Bremia lactucae</i> , <i>Peronospora</i> spp.)* Powdery mildew (<i>Golovinomyces (Erysiphe) cichoracearum</i>)* Bacterial blights Head and leaf drop (<i>Sclerotinia</i> spp.) ² Pink rot (<i>Sclerotinia sclerotiorum</i>) ² Leaf spots (<i>Cercospora</i> spp.)

bok choy, and related crops), including those grown for seed production.	See instructions below for "Soil application" against the following diseases: "Damping off," seedling blights, and root or crown diseases caused by <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Phytophthora</i> , or <i>Verticillium</i> * spp. Bottom rot (<i>Rhizoctonia solani</i>)
Legume vegetables succulent and dried beans and peas such as green, snap, shell, and Lima beans, garbanzo beans, chickpeas, soybeans, dry beans, peas, split peas, lentils, and other legumes, including those grown for seed production.	White mold (<i>Sclerotinia sclerotiorum</i>) ² Gray mold (<i>Botrytis cinerea</i>) Powdery mildew (<i>Microsphaera diffusa</i>) Rusts*, including <i>Uromyces appendiculatus</i> , <i>Puccinia</i> spp., and Asian soybean rust (<i>Phyospora pachyrhizi</i>) "Damping off," seedling blights, and root or crown diseases caused by <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Phytophthora</i> , or <i>Verticillium</i> * spp. (see instructions below for "Soil application").
Root, tuber, and corm vegetables such as potato, sweet potato, carrot, cassava, beets, ginger, radish, horseradish ²² , ginseng, turnip, and other root, tuber and corm crops. (including those grown for seed production).	Black root/crown rot (<i>Alternaria</i> spp.) Bacterial leaf blight (<i>Xanthomonas campestris</i>) Downy mildew (<i>Peronospora</i> spp.) Powdery mildew (<i>Erysiphe</i> spp.) Gray mold (<i>Botrytis</i> spp.) White mold (<i>Sclerotinia sclerotiorum</i>) ² Black leg /bacterial soft rot (<i>Erwinia carotovora</i>)** Early blight (<i>Alternaria solani</i>)* Late blight (<i>Phytophthora infestans</i>)* See instructions below for "Soil application" against the following diseases: Black scurf (<i>Rhizoctonia solani</i>) Cavity spot (<i>Pythium</i> spp.) "Damping off," seedling blights, and root or crown diseases caused by <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Phytophthora</i> , or <i>Verticillium</i> * spp.
Other vegetables such as sweet corn, popcorn, asparagus, peanut, and watercress	<i>Botrytis</i> spp. Rusts (<i>Puccinia</i> spp.) White mold (<i>Sclerotinia sclerotiorum</i>) ² Leaf spots (<i>Cercospora</i> and <i>Cercosporidium</i> spp.)* "Damping off," seedling blights, and root or crown diseases caused by <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Phytophthora</i> , or <i>Verticillium</i> * spp. (see instructions below for "Soil application").
Tree fruits and nuts	
Citrus such as orange, lemon, lime, grapefruit, tangerine (mandarin), tangelo, pummelo, and other citrus	<i>Alternaria</i> leaf spot (<i>Alternaria alternata</i>) Postbloom fruit drop (<i>Colletotrichum acutatum</i>)* Greasy spot (<i>Mycosphaerella citri</i>)* ³ Citrus canker (<i>Xanthomonas campestris</i> pv. <i>citri</i>) ¹ Scab (<i>Elsinoe fawcetti</i>)* ⁴ Melanose (<i>Diaporthe citri</i>)*
Pome fruits such as apple, pear, crabapple, quince, and others	Powdery mildew (<i>Podosphaera leucotricha</i>) ⁵ Scab (<i>Venturia</i> spp.)* Flayspeck (<i>Zygophiala jamaicensis</i>) ^{6**} Sooty blotch disease complex ^{6**} Brooks spot (<i>Mycosphaerella pomi</i>) ^{6**} Bot rot/white rot (<i>Botryosphaeria dothidea</i>) ^{6**} Bitter rot (<i>Colletotrichum</i> spp.) ⁶ Cedar apple rust (<i>Gymnosporangium juniperi-virginianae</i>) ^{6**} Fire blight (<i>Erwinia amylovora</i>)* ⁷
Stone fruits such as apricot, cherry, nectarine, peach, plum, prune, pluot, and others	Powdery mildew (<i>Sphaerotheca</i> and <i>Podosphaera</i> spp.)* ⁸ Bacterial canker (<i>Pseudomonas</i> spp.) Brown rot blossom blight (<i>Monilinia laxa</i>) ⁹ Brown rot (<i>Monilinia fructicola</i>)* ¹⁰ Gray mold (<i>Botrytis cinerea</i>) ¹⁰ Peach leaf curl (<i>Taphrina deformans</i>) Bacterial leaf spot (<i>Xanthomonas arbuticola</i> pv. <i>pruni</i>) ¹ Rusty spot (<i>Podosphaera leucotricha</i>) ¹

Tree nuts such as almond, pistachio, pecan, walnut, filbert, hazelnut, chestnut, macadamia, and other tree nuts.	Walnut blight (<i>Xanthomonas campestris</i>) ¹¹ Anthracnose (<i>Colletotrichum acutatum</i>)* Bacterial canker (<i>Pseudomonas syringae</i>) Shot hole (<i>Wilsonomyces carpophilus</i>)* Brown rot (<i>Monilinia</i> spp.)* Pecan scab (<i>Cladosporium caryigenum</i>)* ¹ and **
Pomegranates	Leaf and fruit spots (<i>Cercospora</i> , <i>Gloeosporium</i> and <i>Pestalotia</i> spp.) ¹ Fruit rots (<i>Alternaria</i> , <i>Botrytis</i> , and other spp.) ¹⁰ Powdery mildew (<i>Sphaerotheca pannosa</i>)
Other fruits	
Strawberry	Powdery mildew (<i>Sphaerotheca macularis</i> , <i>Erysiphe</i> spp.)* ¹² Gray mold (<i>Botrytis cinerea</i>)* ¹¹ Anthracnose (<i>Colletotrichum acutatum</i>) Angular leaf spot (<i>Xanthomonas fragariae</i>) ¹ For the following diseases, see instructions below for "Soil application" (and also root dip instructions ²²): "Damping off" and root or crown diseases caused by <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Pythium</i> , <i>Phytophthora</i> , and/or <i>Verticillium</i> * spp. Charcoal rot (<i>Macrophomina phaseolina</i>)* ²²
Berries , including blueberry, blackberry, raspberry, loganberry, huckleberry, kiwifruit, gooseberry, elderberry, cranberry (non-flooded fields), currant, and other berries	Mummy berry (<i>Monilinia vaccinii-corymbosi</i>)* Botrytis blight (<i>Botrytis cinerea</i>) Bacterial canker (<i>Pseudomonas</i> spp.) ¹³ Anthracnose fruit rot (<i>Colletotrichum acutatum</i>) ¹⁰ Sclerotinia (<i>Sclerotinia sclerotiorum</i>)
Grapes including wine grapes, table grapes, and raisins	Powdery mildew (<i>Erysiphe</i> (formerly <i>Uncinula</i>) <i>necator</i>) ¹⁴ Gray mold (<i>Botrytis cinerea</i>) ¹⁵ Sour rot complex ¹⁵ Downy mildew (<i>Plasmopara viticola</i>)* Phomopsis (<i>Phomopsis viticola</i>) ¹⁶ Eutypa (<i>Eutypa lata</i>) ¹⁷
Tropical fruits such as avocado ¹⁸ , mango ¹⁸ , papaya ¹⁹ , pineapple ¹⁹ , banana, plantain, and others.	Anthracnose (<i>Colletotrichum</i> spp.) Scab (<i>Sphaceloma perseae</i>) Bacterial canker (<i>Xanthomonas campestris</i>) Sigatoka (<i>Mycosphaerella fijiensis</i>) ²⁰
Other Crops	
Herbs and spices such as basil, thyme, coriander, dill, cilantro, parsley, mint, and others.	Powdery mildews (<i>Oidium</i> spp. and others) Downy mildews (<i>Peronospora</i> spp. and others)* Damping off diseases (<i>Rhizoctonia</i> , <i>Pythium</i> , <i>Alternaria</i> , and <i>Fusarium</i> spp.) Leaf spots (<i>Alternaria</i> , <i>Septoria</i> , <i>Colletotrichum</i> , and <i>Cercospora</i> spp.)* Bacterial diseases (<i>Erwinia</i> , <i>Xanthomonas</i> , and <i>Pseudomonas</i> spp.) Rusts (<i>Puccinia</i> spp. and others) "Damping off" and root or crown diseases caused by <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Pythium</i> , <i>Phytophthora</i> , and/or <i>Verticillium</i> * spp. (see instructions below for "Soil application").
Coffee	Coffee berry disease (<i>Colletotrichum coffeanum</i>) ¹ Coffee rust (<i>Hemileia vastatrix</i>) ^{1***} Anthracnose (<i>Colletotrichum</i> spp.) <i>Botrytis</i> flower blight <i>Cercospora</i> leaf spot** and berry blotch** "Damping off" and root or crown diseases caused by <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Pythium</i> , <i>Phytophthora</i> , and/or <i>Verticillium</i> * spp. (see instructions below for "Soil application").
Tobacco	Angular leaf spot (<i>Pseudomonas</i> spp.) Anthracnose (<i>Colletotrichum</i> and <i>Glomerella</i> spp.) Blue mold or downy mildew (<i>Peronospora</i> spp.)* Brown spot (<i>Alternaria</i>) Barn spot/ frog-eye leaf spot (<i>Cercospora nicotianae</i>) ¹⁰

	Collar rot (<i>Sclerotinia sclerotiorum</i>) ² Gray mold (<i>Botrytis cinerea</i>) Powdery mildew (<i>Erysiphe cichoracearum</i>) Target spot (<i>Rhizoctonia solani</i>) See instructions below for "Soil application" against the following diseases: "Damping off," seedling blights, and root or crown diseases caused by <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Olpidium</i> , <i>Phytophthora</i> , or <i>Verticillium</i> * spp. Charcoal rot (<i>Macrophomina phaseolina</i>) Black root rot (<i>Thielaviopsis basicola</i>) Black shank (<i>Phytophthora</i> spp.)* Southern blight/southern stem rot (<i>Sclerotium rolfsii</i>)*
Corn , including field corn, sweet corn, popcorn, silage corn, seed corn, and other corn crops.	Common rust (<i>Puccinia sorghi</i>)* Southern leaf blight (<i>Bipolaris maydis</i> / <i>Cochliobolus heterostrophus</i> / <i>Helminthosporium maydis</i>)
Cereal grains , such as barley, millet, oats, rice, rye, sorghum, triticale, wheat, and other cereal grain crops (including those grown for seed).	Powdery mildew (<i>Erysiphe graminis</i>) Rust (<i>Puccinia</i> spp.)* Rice blast (<i>Pyricularia oryzae</i>) Sheath spot/blight (<i>Rhizoctonia</i> and <i>Thanatephorus</i> spp.) Smut (<i>Tilletia barclayana</i>) Bacterial blight/streak (<i>Xanthomonas</i> spp.) Stem rots (<i>Magnaporthe</i> and <i>Sclerotium</i> spp.) <i>Cercospora</i> leaf spot Brown rot/leaf spots/smuts (<i>Ceratobasidium</i> , <i>Cochliobolus</i> , <i>Dreschlera</i> , and <i>Entyloma</i> spp.)
Oilseed crops , including canola, castor, coconut, cotton, flax, oil palm, olive, peanut, rapeseed, safflower, sesame, sunflower, soybeans, and other oilseed crops, including those grown for seed production.	White mold/Stem rot (<i>Sclerotinia sclerotiorum</i>) Rusts*, including <i>Uromyces appendiculatus</i> , <i>Puccinia</i> spp., and Asian soybean rust (<i>Phyospora pachyrhizi</i>) Bacterial Speck (<i>Pseudomonas syringae</i> pv. <i>glycinea</i>) Bacterial Pustule (<i>Xanthomonas</i> spp.) Brown Spot (<i>Septoria glycines</i>) <i>Cercospora</i> Leaf Spot Pod and Stem Blights (<i>Diaporthe</i> and <i>Phomopsis</i> spp.) Downy Mildew (<i>Peronospora mansherica</i>)
Mint	Rust (<i>Puccinia</i> spp.)
Hops	Powdery mildew (<i>Sphaerotheca macularis</i>) ²¹
Sugar beets (including crops grown for seed production)	Leaf spots (<i>Cercospora</i> and <i>Ramularia</i> spp.) Powdery mildew (<i>Erysiphe</i> spp.) Rust (<i>Uromyces betae</i>)
Footnotes: *Suppression only; for improved control mix or rotate with chemical fungicide approved for such use. ** NOT FOR USE IN CALIFORNIA ¹ Tank mix or rotate with copper-based fungicides at label rates for improved control. ² Apply at or immediately following planting (but before plant emergence) as a banded seedline treatment 4 to 6 inches wide. Make second application at thinning or cultivation in sufficient water and multiple nozzles to ensure thorough coverage of lower leaves and surrounding soil surface. Incorporation with light irrigation after application may improve disease control. Repeat at 10-14 day intervals if conditions promoting disease persist. ³ For greasy spot suppression, apply at first new foliar flush and repeat with each new flush. Tank mix with spray oil or copper based fungicide at labeled rates. ⁴ For suppression of citrus scab, start applications at first new foliage flush and repeat at petal fall and when fruit are ½ inch in diameter. ⁵ Make first application at or before tight cluster if conditions favor disease development. Repeat at 7-10 day intervals through the second cover spray or longer on susceptible varieties or if environmental conditions favor rapid disease development. ⁶ Begin applications before bloom when environmental conditions favor disease development, repeating at 7 to 14 day intervals or as needed. Control may be enhanced by addition of a surfactant to improve spray coverage. Use only surfactants known to be safe for use on the crop and for which such use is allowed. ⁷ Rotate with antibiotics registered for fire blight control for improved performance. Begin applications at 1-5% open blossoms and repeat every	

3-7 days as necessary until petal fall, when intervals can be increased to 7 days. CX-9032 can also be used in summer "cover spray" applications to control the shoot blight phase of fire blight and summer diseases. Can be mixed with copper fungicides to improve control.

⁸Make first application at popcorn stage and repeat every 7 days.

⁹Start applying at early bloom stage and repeat every 7 days through petal fall.

¹⁰Pre-harvest applications in sufficient water to cover fruit or other harvested plant parts may improve control of postharvest infections.

¹¹Begin applications at or before pistillate bloom, repeating every 7-10 days. Apply before rainfall if possible, and tank mix or rotate with a copper-based bactericide registered for such use for improved control.

¹²Start applications at or just before flowering and repeat every 7-10 days as needed through harvest.

¹³Apply before fall rains and again during dormancy before spring growth.

¹⁴Start applications when new shoots are ½ to 1½ inches long. Repeat at 3-5 inches, 8-10 inches, and then at 7-10 day intervals until disease conditions no longer exist.

¹⁵Apply at bloom, before bunch closure, at veraison, and before harvest.

¹⁶Apply when shoots are ½ to 1 inch long and again when 6-8 inches long.

¹⁷Mix 2 fluid ounces CX-9032 per gallon of water and apply to pruning wounds.

¹⁸Apply at budbreak and repeat on 14-21 day interval as needed through harvest.

¹⁹Apply at flowering and repeat on 14-21 day interval as needed through harvest.

²⁰Apply at first appearance of leaves and repeat at 7-21 day intervals as needed, in sufficient water to obtain thorough coverage of foliage. Tank mix with spray oil or other registered fungicides for improved control.

²¹Mix 6 to 10 fluid ounces CX-9032 per 100 gallons of water and apply in minimum of 20 gallons per acre from emergence to training, 50 gallons per acre from training to wire, and 100 gallons per acre from wire touch through harvest.

²²For treatment of horseradish or strawberry roots immediately before transplanting: immerse bare roots (individually or in bunches) for 10 seconds in a suspension of 1 to 2 pints CX-9032 per gallon of water.

***Foliar application:** For control of diseases on foliage, flowers, fruit, or other above-ground parts of plants:* Mix CX-9032 in water and apply as a spray at a rate of **0.5 to 6 quarts** of CX-9032 per acre in sufficient water to achieve thorough coverage of the crop canopy with minimal runoff. Begin applications at crop emergence, transplanting, or when conditions are conducive to development of disease. Repeat application every 3 to 10 days, or as needed, for as long as conditions favor disease development. Lower rates (0.5 to 3 quarts per acre) may be applied under light disease pressure, to smaller (e.g. newly-emerged) plants, or when CX-9032 is used in a tank mix with other fungicides whose labels allow such use. Under moderate to severe disease pressure, or when environmental conditions and plant stage are conducive to rapid disease development, use higher label rates (3-6 quarts/acre), apply more frequently (every 3-7 days), and mix or rotate CX-9032 with other fungicides for improved performance.

***Soil application:** For control of soilborne diseases infecting seeds, seedlings, roots, crown, stems, or other plant parts below ground or in contact with soil:* Apply CX-9032 at **0.5 to 4.5 pints per acre**. Mix the required amount in sufficient water to apply by one of the following methods:

- Soil drench applied to transplants in flats or pots in the greenhouse or nursery any time prior to transplanting (see additional drench instructions under "Nurseries, greenhouses, shade houses, and ornamental plants" below).
- Soil drench at transplanting, using a "water wheel" injector, spray nozzles/hoses, or other method to drench each root ball and/or planting hole.
- Soil or seedline drench, or banded spray (in-furrow) at planting. See the section on "Banded (in-furrow) application" below for additional instructions.

Follow-up (post-planting) preventative applications can be made every 2-4 weeks by one or more of the following methods, if needed:

- Drip (trickle) or any type of sprinkler irrigation, any time after planting or transplanting. See Chemigation Instructions for additional information.

- Spray directly onto the soil surface and/or lower plant parts. If targeting root disease, follow immediately with sufficient overhead sprinkler irrigation to move CX-9032 to the root zone.
- Injection directly into the rooting zone using shanks or similar equipment.

Lower rates (0.5 to 2 pints of CX-9032 per acre) may be applied under light disease pressure, to smaller plants, or when CX-9032 is used in a tank mix with other fungicides whose labels allow such use. Under moderate to severe disease pressure, or when environmental conditions and plant stage are conducive to rapid disease development, use higher label rates (2 - 4.5 pints per acre), apply more frequently (every 2 weeks), and mix or rotate CX-9032 with other fungicides for improved performance.

Banded (in-furrow) application: Use the table below (rate CX-9032 per acre) to determine the correct application rate in fluid ounces per 1,000 row feet based on row spacing and desired rate per acre. Mix the required amount of CX-9032 in water and apply as banded spray (4" to 6" wide) or seedline drench centered over the planting furrow. Apply directly over seeds in the furrow just before they are covered with soil. The volume of water required per acre or per 1,000 row feet will depend on the application equipment used. Consult your local cooperative extension service if you need assistance calibrating band spraying equipment.

Rates for banded (in-furrow) application: Find desired application rate of CX-9032 per acre in the left column. Read across that line to the correct row spacing indicated at the top to find the number of fluid ounces per 1,000 row feet that will provide the desired application rate per acre.

CX-9032 rate/acre		Space between rows (inches)														
Pints	fl oz	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
0.5	8	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.6
0.75	12	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.8	0.8	0.9	0.9
1.0	16	0.4	0.4	0.5	0.6	0.6	0.7	0.7	0.8	0.9	0.9	1.0	1.0	1.1	1.2	1.2
1.25	20	0.5	0.5	0.6	0.7	0.8	0.8	0.9	1.0	1.1	1.1	1.2	1.3	1.4	1.5	1.5
1.5	24	0.6	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.7	1.8
1.75	28	0.6	0.7	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1
2.0	32	0.7	0.9	1.0	1.1	1.2	1.3	1.5	1.6	1.7	1.8	2.0	2.1	2.2	2.3	2.4
2.25	36	0.8	1.0	1.1	1.2	1.4	1.5	1.7	1.8	1.9	2.1	2.2	2.3	2.5	2.6	2.8
2.5	40	0.9	1.1	1.2	1.4	1.5	1.7	1.8	2.0	2.1	2.3	2.4	2.6	2.8	2.9	3.1
2.75	44	1.0	1.2	1.3	1.5	1.7	1.9	2.0	2.2	2.4	2.5	2.7	2.9	3.0	3.2	3.4
3.0	48	1.1	1.3	1.5	1.7	1.8	2.0	2.2	2.4	2.6	2.8	2.9	3.1	3.3	3.5	3.7
3.25	52	1.2	1.4	1.6	1.8	2.0	2.2	2.4	2.6	2.8	3.0	3.2	3.4	3.6	3.8	4.0
3.5	56	1.3	1.5	1.7	1.9	2.1	2.4	2.6	2.8	3.0	3.2	3.4	3.6	3.9	4.1	4.3
3.75	60	1.4	1.6	1.8	2.1	2.3	2.5	2.8	3.0	3.2	3.4	3.7	3.9	4.1	4.4	4.6
4.0	64	1.5	1.7	2.0	2.2	2.4	2.7	2.9	3.2	3.4	3.7	3.9	4.2	4.4	4.7	4.9
4.25	68	1.6	1.8	2.1	2.3	2.6	2.9	3.1	3.4	3.6	3.9	4.2	4.4	4.7	4.9	5.2
4.5	72	1.7	1.9	2.2	2.5	2.8	3.0	3.3	3.6	3.9	4.1	4.4	4.7	5.0	5.2	5.5

Nurseries, greenhouses, shadehouses, and ornamental plants

Spray application: Mix **0.5 to 6 quarts of CX-9032 per 100 gallons of water** and apply as a foliar spray of sufficient volume to wet the entire plant with minimal runoff. Begin preventative applications at plant emergence and repeat every 3-28 days as needed (every 3-7 days if disease pressure is high or environmental conditions are highly favorable to disease outbreak, 10-28 days under low pressure or less conducive conditions).

Drench application: Mix **0.5 to 4.5 pints of CX-9032 per 100 gallons of water** and apply as a drench or coarse spray to soil or other growing media in pots, flats, plugs, trays, or planting beds, for control or suppression of soilborne diseases of seedlings, cuttings, bedding plants, and transplants (including vegetables and other transplanted food crops). Make first application at or immediately before seeding, sticking, germination, or transplanting. Repeat applications every 14-28 days as needed. Transplants can be treated immediately before transplanting into field soils to protect against damping-off and other diseases that reduce plant establishment.

Cutting or root dip: Dip basal end of cuttings or bare roots (individually or in bunches) in a suspension of **1 to 2 pints of CX-9032 per gallon of water**. Immerse for 5-10 seconds immediately before planting.

Chemigation: Mix **0.5 to 4.5 pints of CX-9032 per 100 gallons of water** and apply via drip, handheld, or sprinkler irrigation systems. Refer to "Chemigation Instructions" for more details.

CROPS/USE SITES	DISEASES/PATHOGENS
Indoor, outdoor, and shade- or other cover-grown ornamental trees and shrubs, flowering plants, foliage plants, tropical plants, potted plants, potted or cut flowers, bedding plants, forestry seedlings, conifer production for reforestation, fruit trees, vegetables and other crops grown in greenhouses or nurseries.	Powdery mildews caused by <i>Erysiphe</i> , <i>Podosphaera</i> , <i>Sphaerotheca</i> , <i>Oidium</i> , and <i>Golovinomyces</i> spp. Anthracnose (<i>Colletotrichum</i> spp.) Bacterial leaf spots caused by <i>Erwinia</i> , <i>Pseudomonas</i> , and <i>Xanthomonas</i> spp. Damping-off disease (<i>Rhizoctonia</i> , <i>Pythium</i> , <i>Fusarium</i> spp.) Late blight, blackeye, and root rots caused by <i>Phytophthora</i> spp. Gray mold and blight caused by <i>Botrytis cinerea</i> Black root rot (<i>Aspergillus</i> spp.) Black spot of roses (<i>Diplocarpon rosae</i>) Downy mildew (<i>Peronospora</i> spp.) Leaf spots caused by <i>Alternaria</i> , <i>Septoria</i> , <i>Cercospora</i> , <i>Entomosporium</i> , <i>Helminthosporium</i> , and <i>Myrothecium</i> spp.) Rust (<i>Puccinia</i> spp.) Scab (<i>Venturia</i> spp.) Root rot, bottom rot, or stem rot caused by <i>Rhizoctonia solani</i> <i>Sclerotinia</i> blight <i>Fusarium</i> wilts

Turfgrass application

For control of foliar diseases, apply CX-9032 at **1 to 4 fluid ounces per 1,000 square feet** as a ground-directed spray in sufficient water to provide thorough coverage. To control root and crown diseases in or on the soil, immediately follow the spray with sufficient overhead sprinkler irrigation to move the product into the root zone.

USE SITES/CROPS	DISEASES/PATHOGENS
Turf, sod, lawns, golf course (fairways, roughs, greens, tees), grass seed production	Anthracnose (<i>Colletotrichum graminicola</i>) Brown patch (<i>Rhizoctonia solani</i>) Dollar spot (<i>Lanzia</i> and <i>Moellerodiscus</i> spp., formerly <i>Sclerotinia homeocarpa</i>)

Including but not limited to: Bluegrass, Bentgrass, Bermudagrass (common & hybrid), Dichondra, Fescue, Orchardgrass, <i>Poa annua</i> , St. Augustine grass, Ryegrass, <i>Zoysia</i> , mixtures, and other grasses or ornamental turf	Powdery mildew (<i>Erysiphe graminis</i>) Rust (<i>Puccinia</i> spp.) Gray leaf spot (<i>Pyricularia grisea</i>) “Damping off” or seedling blights caused by <i>Pythium</i>
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Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses. Keep unprotected persons out of treated areas until sprays have dried.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage: Store in a dry area inaccessible to children. Store in original containers only. Keep container closed when not in use.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of onsite or at an approved waste disposal facility.

Container Handling: Nonrefillable container. Do not reuse or refill this container.

-for containers equal to or less than 5 gallons-

Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling, if available or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

-for containers greater than 5 gallons-

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Then offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

CHEMIGATION INSTRUCTIONS

General information:

Apply this product only through drip (trickle) irrigation (including micro-irrigation through spaghetti tubes or individual tubes) or sprinkler irrigation (including impact or microsprinklers, microjet, overhead boom, water gun, solid set, lateral move, end tow, side-roll, center pivot, or hand move, including mist-type systems); or with hand-held calibrated irrigation equipment (such as a hand-held wand with injector). Do not apply this product through any other type of irrigation system.

Crop injury or lack of effectiveness can result from non-uniform distribution of treated water.

If you have questions about calibration, contact State Extension Service specialists, equipment manufacturers or other experts.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection.

The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water

pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and injector system and flush with clean water before use. Failure to provide a clean tank, free of scale or residues may reduce effectiveness of this product.

Drip (trickle) and micro-irrigation chemigation

1. The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump such as a positive displacement injection pump (i.e., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Dilute the product in water following the label mixing directions. It may be premixed in a supply tank with water, fertilizer, or other appropriate tank-mixed agricultural chemicals. Agitation is necessary. Apply to moderately moist soils. Use volumes that thoroughly wet the soil but that do not cause significant runoff or excessive drip from pots. Application should be continuous in sufficient water to apply the recommended rate evenly to the entire treated area.

Sprinkler chemigation:

1. The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system

interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, such as a positive displacement injection pump (i.e., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Dilute the product in water following the label mixing directions. It may be premixed in a supply tank with water, fertilizer or other appropriate tank-mixed agricultural chemicals. Agitation is necessary. Apply to moderately moist soils. Use volumes that thoroughly wet the soil but that do not cause significant runoff or excessive drip from pots. Application should be continuous in sufficient water to apply the recommended rate evenly to the entire treated area.
8. Do not apply when wind speed favors drift beyond the area intended for treatment.

WARRANTY

Certis USA, L.L.C. warrants that the material contained herein conforms to the description on the label and is reasonably fit for the purpose referred to in the directions for use. Timing and method of application, weather, watering practices, nature of soil, the disease problem, condition of the crop, incompatibility with other influencing factors in the use of this product are beyond the control of the seller. To the extent consistent with applicable law, buyer assumes all risks of use, storage, or handling of this material not in strict accordance with directions given herein. NO OTHER EXPRESS OR IMPLIED WARRANTY OF THE FITNESS OR MERCHANTABILITY IS MADE.

MASTER LABEL
SUBLABEL B: Residential Use

OMRI placeholder

CX-9032

Aqueous Suspension Biofungicide/Bactericide for control of plant diseases in home gardens: vegetables, ornamental and fruit trees, shrubs, lawns, flowers, bedding plants, and potted ornamental plants

FOR ORGANIC GARDENING

Active Ingredient:

Bacillus amyloliquifaciens strain D747* 98.85 %

Other Ingredients 1.15 %

Total 100.00%

*Contains a minimum of 1×10^{10} colony-forming units (cfu) per milliliter

EPA Reg. No. 70051-107

EPA Est. No. 70051-CA-001

Manufactured by: Certis USA, L.L.C.

9145 Guilford Rd., Suite. 175

Columbia, MD 21046

NET CONTENTS:

Lot No.:

KEEP OUT OF REACH OF CHILDREN

CAUTION

SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS (AND DOMESTIC ANIMALS): CAUTION:

Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with eyes or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

FIRST AID

IF ON SKIN: Take off contaminated clothing. Rinse skin with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

IF IN EYES: Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

Have the product container or label with you when calling a poison control center or doctor. Hot Line No.: 1-800-255-3924 for additional information

ENVIRONMENTAL HAZARDS:

To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems.

GENERAL INFORMATION

CX-9032 is a broad-spectrum preventative biofungicide/bactericide for control or suppression of fungal and bacterial plant diseases. The active ingredient of CX-9032 is a naturally occurring strain (D747) of the beneficial bacterium *Bacillus amyloliquefaciens*. CX-9032 also colonizes plant root hairs, preventing establishment of disease-causing fungi and bacteria.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation.

Mixing instructions:

CX-9032 must be mixed with water and applied as a spray to fruit and foliage, or as a drench to plant roots. See below for specific mix rate information.

Application rates and methods:

Spray application for control of powdery mildews, leaf spots, anthracnose, gray mold, and other diseases affecting leaves, flowers, fruit, and other above-ground plant parts of home garden plants: Mix 1 teaspoon of CX-9032 per gallon of water and apply directly to plants using a hand pump sprayer or other suitable spray equipment. Spray just enough to wet all leaves and fruit with minimal run-off or dripping. Total coverage depends on the size of plants to be sprayed and the type of sprayer used. Repeat as needed to maintain disease control, typically every 7-10 days. If disease is prevalent or environmental conditions such as high humidity favor disease outbreak, increase the mixing rate to 1 tablespoon per gallon and shorten the interval between sprays to every 3-7 days.

Drench application for control of diseases affecting plant roots, tubers, or other parts of plants in contact with soil in the home garden: Mix 1 teaspoon of CX-9032 per gallon of water and apply to the soil by one of the following methods:

1. For potted plants (indoors or outdoors), apply in sufficient water to wet the entire root mass using a watering can or tank-fed watering wand. Do not water plants again until 24 hours after application. Alternatively, use a hand-pump or other sprayer to spray the mixture on the soil surface in each pot, then immediately apply sufficient water to move the product into the roots.

2. Drench the roots of transplants with approx. 4 fluid ounces of the mixture immediately before transplanting into pots or garden soil. Allow to soak into the root ball before transplanting.
3. For outdoor-grown plants, use a watering can or sprayer to drench the soil in the planting furrow or transplant hole immediately before planting or transplanting. The amount of water required will depend on the size of the hole or length of furrow.
4. Alternatively, apply in the first watering after planting or transplanting, either by mixing directly into the water at the rate indicated above, or by spraying onto the soil surface at the base of each plant and immediately watering in with a watering can, hose, sprinkler, or other watering device.

CX-9032 can be applied up to and including the day of harvest.

For application to lawns and other grass areas: Mix 1 teaspoon of CX-9032 per gallon of water and apply as a fine spray to the surface of the lawn or grass area. Total amount of mix required will depend on the type of sprayer used and area to be covered, but typically 2 to 5 gallons of spray mix may be required per 1,000 square feet of lawn. CX-9032 can be "watered in" for control of soilborne root and crown diseases by thorough watering immediately after application either with sprinklers or by spraying just before or during light rain.

STORAGE AND DISPOSAL

PESTICIDE STORAGE:

Keep in original container. Store away from direct sunlight, feed, or foodstuffs. Keep container tightly sealed when not in use.

PESTICIDE DISPOSAL AND CONTAINER HANDLING

Non-refillable container. Do not reuse or refill container.

If empty:

Place in trash or offer for recycling, if available.

If partly filled:

Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

For containers greater than 5 gallons-

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat the procedure two more times.

Then offer for recycling, if available, or puncture or dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

WARRANTY

Certis USA L.L.C. warrants that the material contained herein conforms to the description on the label and is reasonably fit for the purposes referred to in the directions for use. Timing and method of application, weather, watering practices, nature of soil, the insect problem, condition of the crop, incompatibility with other chemicals not specifically recommended and other influencing factors in the use of this product are beyond the control of the seller. To the extent consistent with applicable law, buyer assumes all risks of use, storage or handling of this material not in strict accordance with directions given herein. NO OTHER EXPRESS OR IMPLIED WARRANTY OF THE FITNESS OR MERCHANTABILITY IS MADE.



FW: CX-9032 Draft with Kiwi (no mushrooms)
Dively, Chris
to:
Susanne Cerrelli
02/07/2013 03:13 PM
Cc:
"Dively, Chris"
Hide Details
From: "Dively, Chris" <cdively@certisusa.com>

To: Susanne Cerrelli/DC/USEPA/US@EPA

Cc: "Dively, Chris" <cdively@certisusa.com>

1 Attachment



cx-9032 Draft- rev 02042013 Kiwi-No mushroom.pdf

Hi Susanne;
Attached is the draft label (amended) with deletion of references to mushrooms.

Regards,
Chris

From: Dimock, Mike
Sent: Thursday, February 07, 2013 3:10 PM
To: Dively, Chris
Subject: RE: CX-9032 Draft with Kiwi (no mushrooms)

From: Dively, Chris
Sent: Thursday, February 07, 2013 3:02 PM
To: Dimock, Mike
Subject: FW: CX-9032 Draft with Kiwi and mushroom

From: DeWald, Ron
Sent: Monday, February 04, 2013 12:26 PM
To: Dively, Chris
Subject: CX-9032 Draft with Kiwi and mushroom

Chris,

The revised CX-9032 label updated to match the PDF file with same language is attached. The file name has today's date 02042013 inbeded to indentify it as the most current revision.

All yellow highlights have been removed. You may edit and delete language as necessary.

Ron DeWald
Manager 3rd Party Manufacturing and Logistics
Certis USA
9145 Guilford Rd. Su 175
Columbia, MD 21046
Tel: (301) 483-3823
email: rdewald@Certisusa.com

MASTER LABEL
SUBLABEL A: Agricultural Use

CX-9032

(alternate brand names: Amylo-X AS, Double Nickel LC)

Aqueous Suspension Biofungicide/Bactericide

FOR ORGANIC PRODUCTION



Active Ingredient:

Bacillus amyloliquefaciens strain D747* 98.85 %

Other Ingredients 1.15%

Total 100.00%

*Contains a minimum of 1×10^{10} colony-forming units (cfu) per milliliter

EPA Reg. No. 70051-107

EPA Est. No. 70051-CA-001

Manufactured by: Certis USA, L.L.C.

9145 Guilford Rd., Suite. 175

Columbia, MD 21046

NET CONTENTS: 2.5 Gallons

Lot No.:

See Inside Panels for Additional Precautionary Statements

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID

IF ON SKIN: Take off contaminated clothing. Rinse skin with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

IF IN EYES: Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

Have the product label with you when calling a poison control center or doctor.

Hot Line No.: 1-800-255-3924 for additional information

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS & DOMESTIC ANIMALS

CAUTION

Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with eyes, or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco and using the toilet.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks
- Mixer/loaders and applicators must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

Follow manufacturer's instructions for cleaning and maintaining PPE. If no instructions are available, use detergent and hot water for washables. Keep and wash PPE separately from other laundry.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides, the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

Users should:

- Remove clothing/PPE immediately if pesticides get inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

For Terrestrial Uses: Do not apply directly to water or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate. Do not apply when weather conditions favor drift or runoff from treated areas.

GENERAL INFORMATION

CX-9032 is a broad-spectrum preventative biofungicide/bactericide for control or suppression of fungal and bacterial plant diseases. The active ingredient of CX-9032 is a naturally occurring strain (D747) of the beneficial bacterium *Bacillus amyloliquefaciens*. CX-9032 also colonizes plant root hairs, preventing establishment of disease-causing fungi and bacteria.

CX-9032 can be applied alone or in combination and/or rotation with chemical fungicides as a tool for integrated disease management in agricultural crops, ornamental and nursery plants, and turfgrass. CX-9032 offers a valuable tool for management of resistance to chemical fungicides through its multiple and unique modes of action.

CX-9032 can be applied up to and including the day of harvest.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted entry intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water is: coveralls, waterproof gloves, shoes plus socks.

Exception: If the product is soil injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

MIXING AND HANDLING INSTRUCTIONS

Mix the required amount of CX-9032 in water with sufficient agitation to maintain a uniform suspension in the spray or mixing tank. Tank should be cleaned prior to use. Do not use highly alkaline or highly acidic water to mix sprays. Use a buffering agent if necessary to maintain neutrality (pH 6 to 8) of water in the tank. Maintain agitation during application. Apply immediately after mixing; do not allow spray mix to stand overnight.

CX-9032 can be mixed and used with other agricultural chemicals for which such mixing is permitted by the product labels, in accordance with the most restrictive of those label limitations and precautions. If such a mixture is planned, a compatibility "jar test" should first be conducted by mixing the correct proportions of CX-9032 and these products in a small volume of water.

APPLICATION METHODS

Ground: CX-9032 can be applied in most commonly-used ground application equipment, such as (but not limited to): tractor-mounted boom, airblast, high clearance, hose-end, backpack, and

other pressurized sprayers; hose-end or hand-held sprayers; foggers or mist blowers; water wheel and other drench applicators; and shank or other soil injection method.

APPLICATION METHODS (cont.)

Aerial: CX-9032 can be applied by fixed or rotary winged aircraft in a minimum of 3 gallons of water per acre. Standard precautions should be taken to minimize spray drift.

Chemigation: CX-9032 can be applied through drip (trickle) and sprinkler type irrigation equipment. Refer to the section entitled "Chemigation Instructions" for detailed instructions.

Agricultural crops

CROPS	DISEASES/PATHOGENS (See footnotes for additional information)
Vegetables and melons:	
Brassica vegetables such as broccoli, cabbage, cauliflower, Brussels sprouts, kohlrabi, and other cole crops. (including those grown for seed production).	Pin rot complex (<i>Alternaria/Xanthomonas</i>)* Leaf spots (<i>Alternaria</i> spp., <i>Xanthomonas</i> spp.) Downy mildew (<i>Peronospora</i> spp.) Powdery mildew (<i>Erysiphe polygoni</i>) "Damping off," seedling blights, and root or crown diseases caused by <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Phytophthora</i> , or <i>Verticillium</i> * spp. (see instructions below for "Soil application").
Bulb vegetables such as onions, garlic, shallots, and others. (including those grown for seed production).	<i>Botrytis</i> spp. (neck rot, leaf blight) Purple blotch (<i>Alternaria</i> spp.) Downy mildew (<i>Peronospora</i> spp.) Powdery mildew (<i>Erysiphe</i> spp.) Rust (<i>Puccinia porii</i>)* "Damping off," seedling blights, and root or crown diseases caused by <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Phytophthora</i> , or <i>Verticillium</i> * spp. (see instructions below for "Soil application").
Cucurbits such as cucumbers, squash (all types), cantaloupes, muskmelons, watermelons, and other melons. (including those grown for seed production).	Powdery mildew (<i>Erysiphe</i> and <i>Sphaerotheca</i> spp.) Downy mildew (<i>Pseudoperonospora</i> spp.) Gummy stem blight (<i>Didymella bryoniae</i> and <i>Phoma cucurbitacearum</i>) See instructions below for "Soil application" against the following diseases: Vine decline (<i>Monosporascus cannonballus</i>) ** Charcoal rot (<i>Macrophomina phaseoli</i>) ** "Damping off," seedling blights, and root or crown diseases caused by <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Phytophthora</i> , or <i>Verticillium</i> * spp.
Fruiting vegetables such as tomatoes, peppers, eggplant, tomatillo, okra, and others. (including those grown for seed production).	Bacterial spot (<i>Xanthomonas</i> spp.)* ¹ Bacterial speck (<i>Pseudomonas syringae</i> pv. <i>tomato</i>)* ¹ Gray mold (<i>Botrytis cinerea</i>) Powdery mildew* (<i>Leveillula</i> , <i>Oidiopsis</i> , <i>Erysiphe</i> , and <i>Sphaerotheca</i> spp.) Early blight (<i>Alternaria solani</i>)* Late blight (<i>Phytophthora infestans</i>)* See instructions below for "Soil application" against the following diseases: "Damping off," seedling blights, and root or crown diseases caused by <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Phytophthora</i> , or <i>Verticillium</i> * spp. Southern blight (<i>Sclerotium rolfsii</i>)* and **
Leafy vegetables such as head and leaf lettuce, celery, spinach, radicchio, arugula, watercress, and others (including leafy <i>Brassica</i> vegetables such as mustard and collard greens, kale,	Downy mildew (<i>Bremia lactucae</i> , <i>Peronospora</i> spp.)* Powdery mildew (<i>Golovinomyces</i> (<i>Erysiphe</i>) <i>cichoracearum</i>)* Bacterial blights Head and leaf drop (<i>Sclerotinia</i> spp.)* ² Pink rot (<i>Sclerotinia sclerotiorum</i>)* ² Leaf spots (<i>Cercospora</i> spp.)

bok choy, and related crops), including those grown for seed production.	See instructions below for "Soil application" against the following diseases: "Damping off," seedling blights, and root or crown diseases caused by <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Phytophthora</i> , or <i>Verticillium</i> * spp. Bottom rot (<i>Rhizoctonia solani</i>)
Legume vegetables succulent and dried beans and peas such as green, snap, shell, and Lima beans, garbanzo beans, chickpeas, soybeans, dry beans, peas, split peas, lentils, and other legumes, including those grown for seed production.	White mold (<i>Sclerotinia sclerotiorum</i>) ² Gray mold (<i>Botrytis cinerea</i>) Powdery mildew (<i>Microsphaera diffusa</i>) Rusts*, including <i>Uromyces appendiculatus</i> , <i>Puccinia</i> spp., and Asian soybean rust (<i>Phayospora pachyrhizi</i>) "Damping off," seedling blights, and root or crown diseases caused by <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Phytophthora</i> , or <i>Verticillium</i> * spp. (see instructions below for "Soil application").
Root, tuber, and corm vegetables such as potato, sweet potato, carrot, cassava, beets, ginger, radish, horseradish ²² , ginseng, turnip, and other root, tuber and corm crops. (including those grown for seed production).	Black root/crown rot (<i>Alternaria</i> spp.) Bacterial leaf blight (<i>Xanthomonas campestris</i>) Downy mildew (<i>Peronospora</i> spp.) Powdery mildew (<i>Erysiphe</i> spp.) Gray mold (<i>Botrytis</i> spp.) White mold (<i>Sclerotinia sclerotiorum</i>) ² Black leg /bacterial soft rot (<i>Erwinia carotovora</i>)** Early blight (<i>Alternaria solani</i>)* Late blight (<i>Phytophthora infestans</i>)* See instructions below for "Soil application" against the following diseases: Black scurf (<i>Rhizoctonia solani</i>) Cavity spot (<i>Pythium</i> spp.) "Damping off," seedling blights, and root or crown diseases caused by <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Phytophthora</i> , or <i>Verticillium</i> * spp.
Other vegetables such as sweet corn, popcorn, asparagus, peanut, and watercress	<i>Botrytis</i> spp. Rusts (<i>Puccinia</i> spp.) White mold (<i>Sclerotinia sclerotiorum</i>) ² Leaf spots (<i>Cercospora</i> and <i>Cercosporidium</i> spp.)* "Damping off," seedling blights, and root or crown diseases caused by <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Phytophthora</i> , or <i>Verticillium</i> * spp. (see instructions below for "Soil application").
Tree fruits and nuts	
Citrus such as orange, lemon, lime, grapefruit, tangerine (mandarin), tangelo, pummelo, and other citrus	<i>Alternaria</i> leaf spot (<i>Alternaria alternata</i>) Postbloom fruit drop (<i>Colletotrichum acutatum</i>)* Greasy spot (<i>Mycosphaerella citri</i>) ³ Citrus canker (<i>Xanthomonas campestris</i> pv. <i>citri</i>) ¹ Scab (<i>Elsinoe fawcetti</i>) ⁴ Melanose (<i>Diaporthe citri</i>)*
Pome fruits such as apple, pear, crabapple, quince, and others	Powdery mildew (<i>Podosphaera leucotricha</i>) ⁵ Scab (<i>Venturia</i> spp.)* Flyspeck (<i>Zygophiala jamaicensis</i>) ^{6**} Sooty blotch disease complex ^{6**} Brooks spot (<i>Mycosphaerella pomi</i>) ^{6**} Bot rot/white rot (<i>Botryosphaeria dothidea</i>) ^{6**} Bitter rot (<i>Colletotrichum</i> spp.) ⁶ Cedar apple rust (<i>Gymnosporangium juniperi-virginianae</i>) ^{6**} Fire blight (<i>Erwinia amylovora</i>) ⁷
Stone fruits such as apricot, cherry, nectarine, peach, plum, prune, pluot, and others	Powdery mildew (<i>Sphaerotheca</i> and <i>Podosphaera</i> spp.)* ⁸ Bacterial canker (<i>Pseudomonas</i> spp.) Brown rot blossom blight (<i>Monilinia laxa</i>) ⁹ Brown rot (<i>Monilinia fructicola</i>) ¹⁰ Gray mold (<i>Botrytis cinerea</i>) ¹⁰ Peach leaf curl (<i>Taphrina deformans</i>) Bacterial leaf spot (<i>Xanthomonas arbuticola</i> pv. <i>pruni</i>) ¹ Rusty spot (<i>Podosphaera leucotricha</i>) ¹

Tree nuts such as almond, pistachio, pecan, walnut, filbert, hazelnut, chestnut, macadamia, and other tree nuts.	Walnut blight (<i>Xanthomonas campestris</i>) ¹¹ Anthracnose (<i>Colletotrichum acutatum</i>)* Bacterial canker (<i>Pseudomonas syringae</i>) Shot hole (<i>Wilsonomyces carpophilus</i>)* Brown rot (<i>Monilinia</i> spp.)* Pecan scab (<i>Cladosporium caryigenum</i>)* ¹ and **
Pomegranates	Leaf and fruit spots (<i>Cercospora</i> , <i>Gloeosporium</i> and <i>Pestalotia</i> spp.) ¹ Fruit rots (<i>Alternaria</i> , <i>Botrytis</i> , and other spp.) ¹⁰ Powdery mildew (<i>Sphaerotheca pannosa</i>)
Other fruits	
Strawberry	Powdery mildew (<i>Sphaerotheca macularis</i> , <i>Erysiphe</i> spp.)* ¹² Gray mold (<i>Botrytis cinerea</i>)* ¹¹ Anthracnose (<i>Colletotrichum acutatum</i>) Angular leaf spot (<i>Xanthomonas fragariae</i>) ¹ For the following diseases, see instructions below for "Soil application" (and also root dip instructions ²²): "Damping off" and root or crown diseases caused by <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Pythium</i> , <i>Phytophthora</i> , and/or <i>Verticillium</i> * spp. Charcoal rot (<i>Macrophomina phaseolina</i>)* ²²
Berries , including blueberry, blackberry, raspberry, loganberry, huckleberry, kiwifruit, gooseberry, elderberry, cranberry (non-flooded fields), currant, and other berries	Mummy berry (<i>Monilinia vaccinii-corymbosi</i>)* Botrytis blight (<i>Botrytis cinerea</i>) Bacterial canker (<i>Pseudomonas</i> spp.) ¹³ Anthracnose fruit rot (<i>Colletotrichum acutatum</i>) ¹⁰ Sclerotinia (<i>Sclerotinia sclerotiorum</i>)
Grapes including wine grapes, table grapes, and raisins	Powdery mildew (<i>Erysiphe</i> (formerly <i>Uncinula</i>) <i>necator</i>) ¹⁴ Gray mold (<i>Botrytis cinerea</i>) ¹⁵ Sour rot complex ¹⁵ Downy mildew (<i>Plasmopara viticola</i>)* Phomopsis (<i>Phomopsis viticola</i>) ¹⁶ Eutypa (<i>Eutypa lata</i>) ¹⁷
Tropical fruits such as avocado ¹⁸ , mango ¹⁸ , papaya ¹⁹ , pineapple ¹⁹ , banana, plantain, and others.	Anthracnose (<i>Colletotrichum</i> spp.) Scab (<i>Sphaceloma perseae</i>) Bacterial canker (<i>Xanthomonas campestris</i>) Sigatoka (<i>Mycosphaerella fijiensis</i>) ²⁰
Other Crops	
Herbs and spices such as basil, thyme, coriander, dill, cilantro, parsley, mint, and others.	Powdery mildews (<i>Oidium</i> spp. and others) Downy mildews (<i>Peronospora</i> spp. and others)* Damping off diseases (<i>Rhizoctonia</i> , <i>Pythium</i> , <i>Alternaria</i> , and <i>Fusarium</i> spp.) Leaf spots (<i>Alternaria</i> , <i>Septoria</i> , <i>Colletotrichum</i> , and <i>Cercospora</i> spp.)* Bacterial diseases (<i>Erwinia</i> , <i>Xanthomonas</i> , and <i>Pseudomonas</i> spp.) Rusts (<i>Puccinia</i> spp. and others) "Damping off" and root or crown diseases caused by <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Pythium</i> , <i>Phytophthora</i> , and/or <i>Verticillium</i> * spp. (see instructions below for "Soil application").
Coffee	Coffee berry disease (<i>Colletotrichum coffeanum</i>) ¹ Coffee rust (<i>Hemileia vastatrix</i>) ¹ ** Anthracnose (<i>Colletotrichum</i> spp.) <i>Botrytis</i> flower blight <i>Cercospora</i> leaf spot** and berry blotch** "Damping off" and root or crown diseases caused by <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Pythium</i> , <i>Phytophthora</i> , and/or <i>Verticillium</i> * spp. (see instructions below for "Soil application").
Tobacco	Angular leaf spot (<i>Pseudomonas</i> spp.) Anthracnose (<i>Colletotrichum</i> and <i>Glomerella</i> spp.) Blue mold or downy mildew (<i>Peronospora</i> spp.)* Brown spot (<i>Alternaria</i>) Barn spot/ frog-eye leaf spot (<i>Cercospora nicotianae</i>) ¹⁰

	Collar rot (<i>Sclerotinia sclerotiorum</i>) ² Gray mold (<i>Botrytis cinerea</i>) Powdery mildew (<i>Erysiphe cichoracearum</i>) Target spot (<i>Rhizoctonia solani</i>) See instructions below for "Soil application" against the following diseases: "Damping off," seedling blights, and root or crown diseases caused by <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Olpidium</i> , <i>Phytophthora</i> , or <i>Verticillium</i> * spp. Charcoal rot (<i>Macrophomina phaseolina</i>) Black root rot (<i>Thielaviopsis basicola</i>) Black shank (<i>Phytophthora</i> spp.)* Southern blight/southern stem rot (<i>Sclerotium rolfsii</i>)*
Corn , including field corn, sweet corn, popcorn, silage corn, seed corn, and other corn crops.	Common rust (<i>Puccinia sorghi</i>)* Southern leaf blight (<i>Bipolaris maydis</i> / <i>Cochliobolus heterostrophus</i> / <i>Helminthosporium maydis</i>)
Cereal grains , such as barley, millet, oats, rice, rye, sorghum, triticale, wheat, and other cereal grain crops (including those grown for seed).	Powdery mildew (<i>Erysiphe graminis</i>) Rust (<i>Puccinia</i> spp.)* Rice blast (<i>Pyricularia oryzae</i>) Sheath spot/blight (<i>Rhizoctonia</i> and <i>Thanatephorus</i> spp.) Smut (<i>Tilletia barclayana</i>) Bacterial blight/streak (<i>Xanthomonas</i> spp.) Stem rots (<i>Magnaporthe</i> and <i>Sclerotium</i> spp.) <i>Cercospora</i> leaf spot Brown rot/leaf spots/smuts (<i>Ceratobasidium</i> , <i>Cochliobolus</i> , <i>Dreschlera</i> , and <i>Entyloma</i> spp.)
Oilseed crops , including canola, castor, coconut, cotton, flax, oil palm, olive, peanut, rapeseed, safflower, sesame, sunflower, soybeans, and other oilseed crops, including those grown for seed production.	White mold/Stem rot (<i>Sclerotinia sclerotiorum</i>) Rusts*, including <i>Uromyces appendiculatus</i> , <i>Puccinia</i> spp., and Asian soybean rust (<i>Phyospora pachyrhizi</i>) Bacterial Speck (<i>Pseudomonas syringae</i> pv. <i>glycinea</i>) Bacterial Pustule (<i>Xanthomonas</i> spp.) Brown Spot (<i>Septoria glycines</i>) <i>Cercospora</i> Leaf Spot Pod and Stem Blights (<i>Diaporthe</i> and <i>Phomopsis</i> spp.) Downy Mildew (<i>Peronospora mansherica</i>)
Mint	Rust (<i>Puccinia</i> spp.)
Hops	Powdery mildew (<i>Sphaerotheca macularis</i>) ²¹
Sugar beets (including crops grown for seed production)	Leaf spots (<i>Cercospora</i> and <i>Ramularia</i> spp.) Powdery mildew (<i>Erysiphe</i> spp.) Rust (<i>Uromyces betae</i>)
Footnotes: *Suppression only; for improved control mix or rotate with chemical fungicide approved for such use. ** NOT FOR USE IN CALIFORNIA ¹ Tank mix or rotate with copper-based fungicides at label rates for improved control. ² Apply at or immediately following planting (but before plant emergence) as a banded seedline treatment 4 to 6 inches wide. Make second application at thinning or cultivation in sufficient water and multiple nozzles to ensure thorough coverage of lower leaves and surrounding soil surface. Incorporation with light irrigation after application may improve disease control. Repeat at 10-14 day intervals if conditions promoting disease persist. ³ For greasy spot suppression, apply at first new foliar flush and repeat with each new flush. Tank mix with spray oil or copper based fungicide at labeled rates. ⁴ For suppression of citrus scab, start applications at first new foliage flush and repeat at petal fall and when fruit are ½ inch in diameter. ⁵ Make first application at or before tight cluster if conditions favor disease development. Repeat at 7-10 day intervals through the second cover spray or longer on susceptible varieties or if environmental conditions favor rapid disease development. ⁶ Begin applications before bloom when environmental conditions favor disease development, repeating at 7 to 14 day intervals or as needed. Control may be enhanced by addition of a surfactant to improve spray coverage. Use only surfactants known to be safe for use on the crop and for which such use is allowed. ⁷ Rotate with antibiotics registered for fire blight control for improved performance. Begin applications at 1-5% open blossoms and repeat every	

3-7 days as necessary until petal fall, when intervals can be increased to 7 days. CX-9032 can also be used in summer "cover spray" applications to control the shoot blight phase of fire blight and summer diseases. Can be mixed with copper fungicides to improve control.

⁸ Make first application at popcorn stage and repeat every 7 days.

⁹ Start applying at early bloom stage and repeat every 7 days through petal fall.

¹⁰ Pre-harvest applications in sufficient water to cover fruit or other harvested plant parts may improve control of postharvest infections.

¹¹ Begin applications at or before pistillate bloom, repeating every 7-10 days. Apply before rainfall if possible, and tank mix or rotate with a copper-based bactericide registered for such use for improved control.

¹² Start applications at or just before flowering and repeat every 7-10 days as needed through harvest.

¹³ Apply before fall rains and again during dormancy before spring growth.

¹⁴ Start applications when new shoots are ½ to 1½ inches long. Repeat at 3-5 inches, 8-10 inches, and then at 7-10 day intervals until disease conditions no longer exist.

¹⁵ Apply at bloom, before bunch closure, at veraison, and before harvest.

¹⁶ Apply when shoots are ½ to 1 inch long and again when 6-8 inches long.

¹⁷ Mix 2 fluid ounces CX-9032 per gallon of water and apply to pruning wounds.

¹⁸ Apply at budbreak and repeat on 14-21 day interval as needed through harvest.

¹⁹ Apply at flowering and repeat on 14-21 day interval as needed through harvest.

²⁰ Apply at first appearance of leaves and repeat at 7-21 day intervals as needed, in sufficient water to obtain thorough coverage of foliage. Tank mix with spray oil or other registered fungicides for improved control.

²¹ Mix 6 to 10 fluid ounces CX-9032 per 100 gallons of water and apply in minimum of 20 gallons per acre from emergence to training, 50 gallons per acre from training to wire, and 100 gallons per acre from wire touch through harvest.

²² For treatment of horseradish or strawberry roots immediately before transplanting: immerse bare roots (individually or in bunches) for 10 seconds in a suspension of 1 to 2 pints CX-9032 per gallon of water.

Foliar application: For control of diseases on foliage, flowers, fruit, or other above-ground parts of plants: Mix CX-9032 in water and apply as a spray at a rate of **0.5 to 6 quarts** of CX-9032 per acre in sufficient water to achieve thorough coverage of the crop canopy with minimal runoff. Begin applications at crop emergence, transplanting, or when conditions are conducive to development of disease. Repeat application every 3 to 10 days, or as needed, for as long as conditions favor disease development. Lower rates (0.5 to 3 quarts per acre) may be applied under light disease pressure, to smaller (e.g. newly-emerged) plants, or when CX-9032 is used in a tank mix with other fungicides whose labels allow such use. Under moderate to severe disease pressure, or when environmental conditions and plant stage are conducive to rapid disease development, use higher label rates (3-6 quarts/acre), apply more frequently (every 3-7 days), and mix or rotate CX-9032 with other fungicides for improved performance.

Soil application: For control of soilborne diseases infecting seeds, seedlings, roots, crown, stems, or other plant parts below ground or in contact with soil: Apply CX-9032 at **0.5 to 4.5 pints per acre**. Mix the required amount in sufficient water to apply by one of the following methods:

- Soil drench applied to transplants in flats or pots in the greenhouse or nursery any time prior to transplanting (see additional drench instructions under "Nurseries, greenhouses, shade houses, and ornamental plants" below).
- Soil drench at transplanting, using a "water wheel" injector, spray nozzles/hoses, or other method to drench each root ball and/or planting hole.
- Soil or seedline drench, or banded spray (in-furrow) at planting. See the section on "Banded (in-furrow) application" below for additional instructions.

Follow-up (post-planting) preventative applications can be made every 2-4 weeks by one or more of the following methods, if needed:

- Drip (trickle) or any type of sprinkler irrigation, any time after planting or transplanting. See Chemigation Instructions for additional information.

- Spray directly onto the soil surface and/or lower plant parts. If targeting root disease, follow immediately with sufficient overhead sprinkler irrigation to move CX-9032 to the root zone.
- Injection directly into the rooting zone using shanks or similar equipment.

Lower rates (0.5 to 2 pints of CX-9032 per acre) may be applied under light disease pressure, to smaller plants, or when CX-9032 is used in a tank mix with other fungicides whose labels allow such use. Under moderate to severe disease pressure, or when environmental conditions and plant stage are conducive to rapid disease development, use higher label rates (2 - 4.5 pints per acre), apply more frequently (every 2 weeks), and mix or rotate CX-9032 with other fungicides for improved performance.

Banded (in-furrow) application: Use the table below (rate CX-9032 per acre) to determine the correct application rate in fluid ounces per 1,000 row feet based on row spacing and desired rate per acre. Mix the required amount of CX-9032 in water and apply as banded spray (4" to 6" wide) or seedline drench centered over the planting furrow. Apply directly over seeds in the furrow just before they are covered with soil. The volume of water required per acre or per 1,000 row feet will depend on the application equipment used. Consult your local cooperative extension service if you need assistance calibrating band spraying equipment.

Rates for banded (in-furrow) application: Find desired application rate of CX-9032 per acre in the left column. Read across that line to the correct row spacing indicated at the top to find the number of fluid ounces per 1,000 row feet that will provide the desired application rate per acre.

CX-9032 rate/acre		Space between rows (inches)														
Pints	fl oz	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
0.5	8	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.6
0.75	12	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.8	0.8	0.9	0.9
1.0	16	0.4	0.4	0.5	0.6	0.6	0.7	0.7	0.8	0.9	0.9	1.0	1.0	1.1	1.2	1.2
1.25	20	0.5	0.5	0.6	0.7	0.8	0.8	0.9	1.0	1.1	1.1	1.2	1.3	1.4	1.5	1.5
1.5	24	0.6	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.7	1.8
1.75	28	0.6	0.7	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1
2.0	32	0.7	0.9	1.0	1.1	1.2	1.3	1.5	1.6	1.7	1.8	2.0	2.1	2.2	2.3	2.4
2.25	36	0.8	1.0	1.1	1.2	1.4	1.5	1.7	1.8	1.9	2.1	2.2	2.3	2.5	2.6	2.8
2.5	40	0.9	1.1	1.2	1.4	1.5	1.7	1.8	2.0	2.1	2.3	2.4	2.6	2.8	2.9	3.1
2.75	44	1.0	1.2	1.3	1.5	1.7	1.9	2.0	2.2	2.4	2.5	2.7	2.9	3.0	3.2	3.4
3.0	48	1.1	1.3	1.5	1.7	1.8	2.0	2.2	2.4	2.6	2.8	2.9	3.1	3.3	3.5	3.7
3.25	52	1.2	1.4	1.6	1.8	2.0	2.2	2.4	2.6	2.8	3.0	3.2	3.4	3.6	3.8	4.0
3.5	56	1.3	1.5	1.7	1.9	2.1	2.4	2.6	2.8	3.0	3.2	3.4	3.6	3.9	4.1	4.3
3.75	60	1.4	1.6	1.8	2.1	2.3	2.5	2.8	3.0	3.2	3.4	3.7	3.9	4.1	4.4	4.6
4.0	64	1.5	1.7	2.0	2.2	2.4	2.7	2.9	3.2	3.4	3.7	3.9	4.2	4.4	4.7	4.9
4.25	68	1.6	1.8	2.1	2.3	2.6	2.9	3.1	3.4	3.6	3.9	4.2	4.4	4.7	4.9	5.2
4.5	72	1.7	1.9	2.2	2.5	2.8	3.0	3.3	3.6	3.9	4.1	4.4	4.7	5.0	5.2	5.5

Nurseries, greenhouses, shadehouses, and ornamental plants

Spray application: Mix **0.5 to 6 quarts of CX-9032 per 100 gallons of water** and apply as a foliar spray of sufficient volume to wet the entire plant with minimal runoff. Begin preventative applications at plant emergence and repeat every 3-28 days as needed (every 3-7 days if disease pressure is high or environmental conditions are highly favorable to disease outbreak, 10-28 days under low pressure or less conducive conditions).

Drench application: Mix **0.5 to 4.5 pints of CX-9032 per 100 gallons of water** and apply as a drench or coarse spray to soil or other growing media in pots, flats, plugs, trays, or planting beds, for control or suppression of soilborne diseases of seedlings, cuttings, bedding plants, and transplants (including vegetables and other transplanted food crops). Make first application at or immediately before seeding, sticking, germination, or transplanting. Repeat applications every 14-28 days as needed. Transplants can be treated immediately before transplanting into field soils to protect against damping-off and other diseases that reduce plant establishment.

Cutting or root dip: Dip basal end of cuttings or bare roots (individually or in bunches) in a suspension of **1 to 2 pints of CX-9032 per gallon of water**. Immerse for 5-10 seconds immediately before planting.

Chemigation: Mix **0.5 to 4.5 pints of CX-9032 per 100 gallons of water** and apply via drip, handheld, or sprinkler irrigation systems. Refer to "Chemigation Instructions" for more details.

CROPS/USE SITES	DISEASES/PATHOGENS
Indoor, outdoor, and shade- or other cover-grown ornamental trees and shrubs, flowering plants, foliage plants, tropical plants, potted plants, potted or cut flowers, bedding plants, forestry seedlings, conifer production for reforestation, fruit trees, vegetables and other crops grown in greenhouses or nurseries.	Powdery mildews caused by <i>Erysiphe</i> , <i>Podosphaera</i> , <i>Sphaerotheca</i> , <i>Oidium</i> , and <i>Golovinomyces</i> spp. Anthracnose (<i>Colletotrichum</i> spp.) Bacterial leaf spots caused by <i>Erwinia</i> , <i>Pseudomonas</i> , and <i>Xanthomonas</i> spp. Damping-off disease (<i>Rhizoctonia</i> , <i>Pythium</i> , <i>Fusarium</i> spp.) Late blight, blackeye, and root rots caused by <i>Phytophthora</i> spp. Gray mold and blight caused by <i>Botrytis cinerea</i> Black root rot (<i>Aspergillus</i> spp.) Black spot of roses (<i>Diplocarpon rosae</i>) Downy mildew (<i>Peronospora</i> spp.) Leaf spots caused by <i>Alternaria</i> , <i>Septoria</i> , <i>Cercospora</i> , <i>Entomosporium</i> , <i>Helminthosporium</i> , and <i>Myrothecium</i> spp.) Rust (<i>Puccinia</i> spp.) Scab (<i>Venturia</i> spp.) Root rot, bottom rot, or stem rot caused by <i>Rhizoctonia solani</i> <i>Sclerotinia</i> blight <i>Fusarium</i> wilts

Turfgrass application

For control of foliar diseases, apply CX-9032 at **1 to 4 fluid ounces per 1,000 square feet** as a ground-directed spray in sufficient water to provide thorough coverage. To control root and crown diseases in or on the soil, immediately follow the spray with sufficient overhead sprinkler irrigation to move the product into the root zone.

USE SITES/CROPS	DISEASES/PATHOGENS
Turf, sod, lawns, golf course (fairways, roughs, greens, tees), grass seed production	Anthracnose (<i>Colletotrichum graminicola</i>) Brown patch (<i>Rhizoctonia solani</i>) Dollar spot (<i>Lanzia</i> and <i>Moellerodiscus</i> spp., formerly <i>Sclerotinia homeocarpa</i>)

Including but not limited to: Bluegrass, Bentgrass, Bermudagrass (common & hybrid), Dichondra, Fescue, Orchardgrass, <i>Poa annua</i> , St. Augustine grass, Ryegrass, <i>Zoysia</i> , mixtures, and other grasses or ornamental turf	Powdery mildew (<i>Erysiphe graminis</i>) Rust (<i>Puccinia</i> spp.) Gray leaf spot (<i>Pyricularia grisea</i>) "Damping off" or seedling blights caused by <i>Pythium</i>
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Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses. Keep unprotected persons out of treated areas until sprays have dried.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage: Store in a dry area inaccessible to children. Store in original containers only. Keep container closed when not in use.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of onsite or at an approved waste disposal facility.

Container Handling: Nonrefillable container. Do not reuse or refill this container.

-for containers equal to or less than 5 gallons-

Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling, if available or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

-for containers greater than 5 gallons-

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Then offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

CHEMIGATION INSTRUCTIONS

General information:

Apply this product only through drip (trickle) irrigation (including micro-irrigation through spaghetti tubes or individual tubes) or sprinkler irrigation (including impact or microsprinklers, microjet, overhead boom, water gun, solid set, lateral move, end tow, side-roll, center pivot, or hand move, including mist-type systems); or with hand-held calibrated irrigation equipment (such as a hand-held wand with injector). Do not apply this product through any other type of irrigation system.

Crop injury or lack of effectiveness can result from non-uniform distribution of treated water.

If you have questions about calibration, contact State Extension Service specialists, equipment manufacturers or other experts.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection.

The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and injector system and flush with clean water before use. Failure to provide a clean tank, free of scale or residues may reduce effectiveness of this product.

Drip (trickle) and micro-irrigation chemigation

1. The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump such as a positive displacement injection pump (i.e., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Dilute the product in water following the label mixing directions. It may be premixed in a supply tank with water, fertilizer, or other appropriate tank-mixed agricultural chemicals. Agitation is necessary. Apply to moderately moist soils. Use volumes that thoroughly wet the soil but that do not cause significant runoff or excessive drip from pots. Application should be continuous in sufficient water to apply the recommended rate evenly to the entire treated area.

Sprinkler chemigation:

1. The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, such as a positive displacement injection pump (i.e., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Dilute the product in water following the label mixing directions. It may be premixed in a supply tank with water, fertilizer or other appropriate tank-mixed agricultural chemicals. Agitation is necessary. Apply to moderately moist soils. Use volumes that thoroughly wet the soil but that do not cause significant runoff or excessive drip from pots. Application should be continuous in sufficient water to apply the recommended rate evenly to the entire treated area.
8. Do not apply when wind speed favors drift beyond the area intended for treatment.

WARRANTY

Certis USA, L.L.C. warrants that the material contained herein conforms to the description on the label and is reasonably fit for the purpose referred to in the directions for use. Timing and method of application, weather, watering practices, nature of soil, the disease problem, condition of the crop, incompatibility with other influencing factors in the use of this product are beyond the control of the seller. To the extent consistent with applicable law, buyer assumes all risks of use, storage, or handling of this material not in strict accordance with directions given herein. NO OTHER EXPRESS OR IMPLIED WARRANTY OF THE FITNESS OR MERCHANTABILITY IS MADE.

MASTER LABEL
SUBLABEL B: Residential Use

OMRI placeholder

CX-9032

Aqueous Suspension Biofungicide/Bactericide for control of plant diseases in home gardens: vegetables, ornamental and fruit trees, shrubs, lawns, flowers, bedding plants, and potted ornamental plants

FOR ORGANIC GARDENING

Active Ingredient:

Bacillus amyloliquefaciens strain D747*..... 98.85 %

Other Ingredients..... 1.15 %

Total..... 100.00%

*Contains a minimum of 1×10^{10} colony-forming units (cfu) per milliliter

EPA Reg. No. 70051-107

EPA Est. No. 70051-CA-001

Manufactured by: Certis USA, L.L.C.

9145 Guilford Rd., Suite. 175

Columbia, MD 21046

NET CONTENTS:

Lot No.:

KEEP OUT OF REACH OF CHILDREN

CAUTION

SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS (AND DOMESTIC ANIMALS): CAUTION:

Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with eyes or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

FIRST AID

IF ON SKIN: Take off contaminated clothing. Rinse skin with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

IF IN EYES: Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

Have the product container or label with you when calling a poison control center or doctor. Hot Line No.: 1-800-255-3924 for additional information

ENVIRONMENTAL HAZARDS:

To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems.

GENERAL INFORMATION

CX-9032 is a broad-spectrum preventative biofungicide/bactericide for control or suppression of fungal and bacterial plant diseases. The active ingredient of CX-9032 is a naturally occurring strain (D747) of the beneficial bacterium *Bacillus amyloliquefaciens*. CX-9032 also colonizes plant root hairs, preventing establishment of disease-causing fungi and bacteria.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation.

Mixing instructions:

CX-9032 must be mixed with water and applied as a spray to fruit and foliage, or as a drench to plant roots. See below for specific mix rate information.

Application rates and methods:

Spray application for control of powdery mildews, leaf spots, anthracnose, gray mold, and other diseases affecting leaves, flowers, fruit, and other above-ground plant parts of home garden plants: Mix 1 teaspoon of CX-9032 per gallon of water and apply directly to plants using a hand pump sprayer or other suitable spray equipment. Spray just enough to wet all leaves and fruit with minimal run-off or dripping. Total coverage depends on the size of plants to be sprayed and the type of sprayer used. Repeat as needed to maintain disease control, typically every 7-10 days. If disease is prevalent or environmental conditions such as high humidity favor disease outbreak, increase the mixing rate to 1 tablespoon per gallon and shorten the interval between sprays to every 3-7 days.

Drench application for control of diseases affecting plant roots, tubers, or other parts of plants in contact with soil in the home garden: Mix 1 teaspoon of CX-9032 per gallon of water and apply to the soil by one of the following methods:

1. For potted plants (indoors or outdoors), apply in sufficient water to wet the entire root mass using a watering can or tank-fed watering wand. Do not water plants again until 24 hours after application. Alternatively, use a hand-pump or other sprayer to spray the mixture on the soil surface in each pot, then immediately apply sufficient water to move the product into the roots.

2. Drench the roots of transplants with approx. 4 fluid ounces of the mixture immediately before transplanting into pots or garden soil. Allow to soak into the root ball before transplanting.
3. For outdoor-grown plants, use a watering can or sprayer to drench the soil in the planting furrow or transplant hole immediately before planting or transplanting. The amount of water required will depend on the size of the hole or length of furrow.
4. Alternatively, apply in the first watering after planting or transplanting, either by mixing directly into the water at the rate indicated above, or by spraying onto the soil surface at the base of each plant and immediately watering in with a watering can, hose, sprinkler, or other watering device.

CX-9032 can be applied up to and including the day of harvest.

For application to lawns and other grass areas: Mix 1 teaspoon of CX-9032 per gallon of water and apply as a fine spray to the surface of the lawn or grass area. Total amount of mix required will depend on the type of sprayer used and area to be covered, but typically 2 to 5 gallons of spray mix may be required per 1,000 square feet of lawn. CX-9032 can be "watered in" for control of soilborne root and crown diseases by thorough watering immediately after application either with sprinklers or by spraying just before or during light rain.

STORAGE AND DISPOSAL

PESTICIDE STORAGE:

Keep in original container. Store away from direct sunlight, feed, or foodstuffs. Keep container tightly sealed when not in use.

PESTICIDE DISPOSAL AND CONTAINER HANDLING

Non-refillable container. Do not reuse or refill container.

If empty:

Place in trash or offer for recycling, if available.

If partly filled:

Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

WARRANTY

Certis USA L.L.C. warrants that the material contained herein conforms to the description on the label and is reasonably fit for the purposes referred to in the directions for use. Timing and method of application, weather, watering practices, nature of soil, the insect problem, condition of the crop, incompatibility with other chemicals not specifically recommended and other influencing factors in the use of this product are beyond the control of the seller. To the extent consistent with applicable law, buyer assumes all risks of use, storage or handling of this material not in strict accordance with directions given herein. **NO OTHER EXPRESS OR IMPLIED WARRANTY OF THE FITNESS OR MERCHANTABILITY IS MADE.**



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January 4, 2013

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Office of Pesticide Programs (7504P)
U.S. Environmental Protection Agency
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2777 South Crystal Drive
Arlington, VA 22202-4501

**Re: Certis USA L.L.C.
Submission of Final Printed Labeling for Registered Pesticide Products**

On behalf of Certis USA, L.L.C., 9145 Guilford Road Suite 175 Columbia, MD 21046, I am respectfully submitting an 8570-1 Form and three copies of the final printed labels for each of the following registered pesticide products:

- | | |
|------------------------------|----------------------------------|
| • Deliver | (EPA Registration No. 70051-69) |
| • Double Nickel LC (CX-9032) | (EPA Registration No. 70051-107) |
| • Double Nickel 55 (CX-9030) | (EPA Registration No. 70051-108) |
| • CYD-X HP (CYD-X Plus) | (EPA Registration No. 70051-112) |

Please note that copies of OMRI certificates are included, when not previously submitted to the Agency.

Please do not hesitate to contact me if you have any questions about this submission. I can be reached by telephone at 301-483-3806 or by email at cdively@certisusa.com.

Sincerely,

Christine A. Dively
Directory of Regulatory Affairs
Certis U.S.A. L.L.C.

Dated: 5/16/82
Reviewer: S. Carr 10/2/82

DoubleNickel™ LC

BIOFUNGICIDE

Aqueous Suspension Biofungicide/Bactericide

FOR ORGANIC PRODUCTION

ACTIVE INGREDIENT:

Bacillus amyloliquefaciens strain D747*98.85%

OTHER INGREDIENTS:1.15%

TOTAL.....100.00%

*Contains a minimum of 1×10^{10} colony-forming units (cfu) per milliliter

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

See Inside Panels for Additional Precautionary Statements

OMRI™
Listed
Organic Materials Review Institute

Net Contents: 2.5 Gallons
EPA Reg. No. 70051-107
EPA Est. No. 70051-CA-001

Lot No:

Manufactured by
CertiS USA, L.L.C.
9145 Gullford Road
Suite 175
Columbia, MD 21046

CERTIS

FIRST AID

If on skin: Take off contaminated clothing. Rinse skin with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

If in eyes: Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

Have the product label with you when calling a poison control center or doctor.

Hot Line No.: 1-800-265-3924 for additional information

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS & DOMESTIC ANIMALS

CAUTION

Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with eyes, or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco and using the toilet.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

Mixer/loaders and applicators must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

Follow manufacturer's instructions for cleaning and maintaining PPE. If no instructions are available, use detergent and hot water for washables. Keep and wash PPE separately from other laundry.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides, the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

Users should:

- Remove clothing/PPE immediately if pesticides get inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

For Terrestrial Uses: Do not apply directly to water or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate. Do not apply when weather conditions favor drift or runoff from treated areas.

GENERAL INFORMATION

Double Nickel™ LC is a broad-spectrum preventative biofungicide/bactericide for control or suppression of fungal and bacterial plant diseases. The active ingredient of Double Nickel™ LC is a naturally occurring strain (D747) of the beneficial bacterium *Bacillus amyloliquefaciens*. Double Nickel™ LC also colonizes plant root hairs, preventing establishment of disease-causing fungi and bacteria.

Double Nickel™ LC can be applied alone or in combination and/or rotation with chemical fungicides as a tool for integrated disease management in agricultural crops, ornamental and nursery plants, and turfgrass. Double Nickel™ LC offers a valuable tool for management of resistance to chemical fungicides through its multiple and unique modes of action.

Double Nickel™ LC can be applied up to and including the day of harvest.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted entry intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water is: coveralls, waterproof gloves, shoes plus socks.

Exception: If the product is soil injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

MIXING AND HANDLING INSTRUCTIONS

Mix the required amount of Double Nickel™ LC in water with sufficient agitation to maintain a uniform suspension in the spray or mixing tank. Tank should be cleaned prior to use. Do not use highly alkaline or highly acidic water to mix sprays. Use a buffering agent if necessary to maintain neutrality (pH 6 to 8) of water in the tank. Maintain agitation during application. Apply immediately after mixing; do not allow spray mix to stand overnight.

Double Nickel™ LC can be mixed and used with other agricultural chemicals for which such mixing is permitted by the product labels, in accordance with the most

restrictive of those label limitations and precautions. If such a mixture is planned, a compatibility "jar test" should first be conducted by mixing the correct proportions of Double Nickel™ LC and these products in a small volume of water.

APPLICATION METHODS

Ground: Double Nickel™ LC can be applied in most commonly-used ground application equipment, such as (but not limited to): tractor-mounted boom, airblast, high clearance, hose-end, backpack, and other pressurized sprayers; hose-end or hand-held sprayers; foggers or mist blowers; water wheel and other drench applicators; and shank or other soil injection method.

Aerial: Double Nickel™ LC can be applied by fixed or rotary winged aircraft in a minimum of 3 gallons of water per acre. Standard precautions should be taken to minimize spray drift.

Chemigation: Double Nickel™ LC can be applied through drip (trickle) and sprinkler type irrigation equipment. Refer to the section entitled "Chemigation instructions" for detailed instructions.

Agricultural crops

CROPS	DISEASES/PATHOGENS (See footnotes for additional information)
Vegetables and melons	
Brassica vegetables such as broccoli, cabbage, cauliflower, Brussels sprouts, kohlrabi, and other cole crops.	Pin rot complex (<i>Alternaria/Xanthomonas</i>) [*] Leaf spots (<i>Alternaria</i> spp., <i>Xanthomonas</i> spp.) Downy mildew (<i>Peronospora</i> spp.) Powdery mildew (<i>Erysiphe polygoni</i>) "Damping off," seedling blights, and root or crown diseases caused by <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Phytophthora</i> , or <i>Verticillium</i> spp. (see instructions below for "Soil application").
Bulb vegetables such as onions, garlic, shallots, and others.	<i>Botrytis</i> spp. (neck rot, leaf blight) Purple blotch (<i>Alternaria</i> spp.) Downy mildew (<i>Peronospora</i> spp.) Powdery mildew (<i>Erysiphe</i> spp.) Rust (<i>Puccinia</i> spp.) "Damping off," seedling blights, and root or crown diseases caused by <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Phytophthora</i> , or <i>Verticillium</i> spp. (see instructions below for "Soil application").
Cucurbits such as cucumbers, squash (all types), cantaloupes, muskmelons, watermelons, and other melons.	Powdery mildew (<i>Erysiphe</i> and <i>Sphaerotheca</i> spp.) Downy mildew (<i>Pseudoperonospora</i> spp.) Gummy stem blight (<i>Didymella bryoniae</i> and <i>Phoma cucurbitacearum</i>) See instructions below for "Soil application" against the following diseases: Vine decline (<i>Monosporascus cannonballus</i>) ^{**} Charcoal rot (<i>Macrophomina phaseoli</i>) ^{**} "Damping off," seedling blights, and root or crown diseases caused by <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Phytophthora</i> , or <i>Verticillium</i> spp.
Fruiting vegetables such as tomatoes, peppers, eggplant, tomato, okra, and others.	Bacterial spot (<i>Xanthomonas</i> spp.) ^{*1} Bacterial speck (<i>Pseudomonas syringae</i> pv. <i>tomato</i>) ^{*1} Gray mold (<i>Botrytis cinerea</i>) Powdery mildew (<i>Leveillula</i> , <i>Oidium</i> spp., <i>Erysiphe</i> , and <i>Sphaerotheca</i> spp.) Early blight (<i>Alternaria solani</i>) [*] Late blight (<i>Phytophthora infestans</i>) [*] See instructions below for "Soil application" against the following diseases: "Damping off," seedling blights, and root or crown diseases caused by <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Phytophthora</i> , or <i>Verticillium</i> spp. Southern blight (<i>Sclerotium rolfsii</i>) [*] and ^{**}
Leafy vegetables such as head and leaf lettuce, celery, spinach, radicchio, arugula, watercress, and others (including leafy Brassica vegetables such as mustard and collard greens, kale, bok choy, and related crops).	Downy mildew (<i>Bremia lactucae</i> , <i>Peronospora</i> spp.) [*] Powdery mildew (<i>Gaeumannomyces (Erysiphe) cichoracearum</i>) [*] Bacterial blights Head and leaf drop (<i>Sclerotinia</i> spp.) ² Pink rot (<i>Sclerotinia sclerotiorum</i>) ² Leaf spots (<i>Cercospora</i> spp.) See instructions below for "Soil application" against the following diseases: "Damping off," seedling blights, and root or crown diseases caused by <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Phytophthora</i> , or <i>Verticillium</i> spp. Bottom rot (<i>Rhizoctonia solani</i>)

(continued)

CROPS	DISEASES/PATHOGENS (See footnotes for additional information)
Vegetables and melons (continued)	
Legume vegetables succulent and dried beans and peas such as green, snap, shell, and Lima beans, garbanzo beans, chickpeas, soybeans, dry beans, peas, split peas, lentils, and other legumes.	White mold (<i>Sclerotinia sclerotiorum</i>) ² Gray mold (<i>Botrytis cinerea</i>) Powdery mildew (<i>Microspheera diffusa</i>) Rusts [*] , including <i>Uromyces appendiculatus</i> , <i>Puccinia</i> spp., and Asian soybean rust (<i>Phytophthora pachyrhizae</i>) "Damping off," seedling blights, and root or crown diseases caused by <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Phytophthora</i> , or <i>Verticillium</i> spp. (see instructions below for "Soil application").
Root, tuber, and corn vegetables such as potato, sweet potato, carrot, cassava, beets, ginger, radish, horseradish ²² , ginseng, turnip, and other root, tuber and corn crops.	Black root/crown rot (<i>Alternaria</i> spp.) Bacterial leaf blight (<i>Xanthomonas campestris</i>) Downy mildew (<i>Peronospora</i> spp.) Powdery mildew (<i>Erysiphe</i> spp.) Gray mold (<i>Botrytis</i> spp.) White mold (<i>Sclerotinia sclerotiorum</i>) ² Black leg/bacterial soft rot (<i>Erwinia carotovora</i>) ^{**} Early blight (<i>Alternaria solani</i>) [*] Late blight (<i>Phytophthora infestans</i>) [*] See instructions below for "Soil application" against the following diseases: Black scurf (<i>Rhizoctonia solani</i>) Cavity spot (<i>Pythium</i> spp.) "Damping off," seedling blights, and root or crown diseases caused by <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Phytophthora</i> , or <i>Verticillium</i> spp.
Other vegetables such as sweet corn, popcorn, asparagus, peanut, and watercress	<i>Botrytis</i> spp. Rusts (<i>Puccinia</i> spp.) White mold (<i>Sclerotinia sclerotiorum</i>) ² Leaf spots (<i>Cercospora</i> and <i>Cercosporidium</i> spp.) [*] "Damping off," seedling blights, and root or crown diseases caused by <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Phytophthora</i> , or <i>Verticillium</i> spp. (see instructions below for "Soil application").
Tree fruits and nuts	
Citrus such as orange, lemon, lime, grapefruit, tangerine (mandarin), tangelo, pummelo, and other citrus	<i>Alternaria</i> leaf spot (<i>Alternaria alternata</i>) Postbloom fruit drop (<i>Colletotrichum acutatum</i>) [*] Greasy spot (<i>Mycosphaerella citri</i>) ³ Citrus canker (<i>Xanthomonas campestris</i> pv. <i>citri</i>) ¹ Scab (<i>Elsinoe fawcettii</i>) ⁴ Melanose (<i>Diaporthe citri</i>) [*]
Pome fruits such as apple, pear, crabapple, quince, and others	Powdery mildew (<i>Podosphaera leucotricha</i>) ⁵ Scab (<i>Venturia</i> spp.) ⁶ Fyspeck (<i>Zygophiala jamaicensis</i>) ^{6**} Sooty blotch disease complex ^{6**} Brooks spot (<i>Mycosphaerella pomigera</i>) ^{6**} Bot rot/white rot (<i>Botryosphaeria dothidea</i>) ^{6**} Bitter rot (<i>Colletotrichum</i> spp.) ⁶ Cedar apple rust (<i>Gymnosporangium juniperi-virginianae</i>) ^{6**} Fire blight (<i>Erwinia amylovora</i>) ⁷
Stone fruits such as apricot, cherry, nectarine, peach, plum, prune, pluot, and others	Powdery mildew (<i>Sphaerotheca</i> and <i>Podosphaera</i> spp.) ⁸ Bacterial canker (<i>Pseudomonas</i> spp.) Brown rot blossom blight (<i>Monilinia laxa</i>) ⁹ Brown rot (<i>Monilinia fructicola</i>) ¹⁰ Gray mold (<i>Botrytis cinerea</i>) ¹⁰ Peach leaf curl (<i>Taphrina deformans</i>) Bacterial leaf spot (<i>Xanthomonas arbuticola</i> pv. <i>pruni</i>) ¹ Rusty spot (<i>Podosphaera leucotricha</i>) ¹
Tree nuts such as almond, pistachio, pecan, walnut, filbert, hazelnut, chestnut, macadamia, and other tree nuts.	Walnut blight (<i>Xanthomonas campestris</i>) ¹¹ Anthracnose (<i>Colletotrichum acutatum</i>) [*] Bacterial canker (<i>Pseudomonas syringae</i>) Shot hole (<i>Wilsonomyces carpophilus</i>) [*] Brown rot (<i>Monilinia</i> spp.) [*] Pecan scab (<i>Cladosporium caryigenum</i>) ¹¹ and ^{**}
Pomegranates	Leaf and fruit spots (<i>Cercospora</i> , <i>Gloeosporium</i> and <i>Pestalotia</i> spp.) ¹ Fruit rots (<i>Alternaria</i> , <i>Botrytis</i> , and other spp.) ¹⁰ Powdery mildew (<i>Sphaerotheca pannosa</i>)

(continued)

CROPS	DISEASES/PATHOGENS (See footnotes for additional information)
Other fruits	
Strawberry	Powdery mildew (<i>Sphaerotheca macularis</i> , <i>Erysiphe</i> spp.) ¹² Gray mold (<i>Botrytis cinerea</i>) ¹¹ Anthracnose (<i>Colletotrichum acutatum</i>) Angular leaf spot (<i>Xanthomonas fragariae</i>) ¹ For the following diseases, see instructions below for "Soil application" (and also root dip instructions ²²): "Damping off" and root or crown diseases caused by <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Pythium</i> , <i>Phytophthora</i> , and/or <i>Verticillium</i> spp. Charcoal rot (<i>Macrophomina phaseolina</i>) ²²
Berries, including blueberry, blackberry, raspberry, loganberry, huckleberry, gooseberry, elderberry, cranberry (non-flooded fields), currant, and other berries	Mummy berry (<i>Monilinia vaccinii-corymbosi</i>) ⁸ Botrytis blight (<i>Botrytis cinerea</i>) Bacterial canker (<i>Pseudomonas</i> spp.) ¹³ Anthracnose fruit rot (<i>Colletotrichum acutatum</i>) ¹⁰
Grapes including wine grapes, table grapes, and raisins	Powdery mildew (<i>Erysiphe</i> (formerly <i>Uncinula</i>) <i>necator</i>) ¹⁴ Gray mold (<i>Botrytis cinerea</i>) ¹⁵ Sour rot complex ¹⁵ Downy mildew (<i>Plasmopara viticola</i>) ⁶ Phomopsis (<i>Phomopsis viticola</i>) ¹⁶ Eutypa (<i>Eutypa lata</i>) ¹⁷
Tropical fruits such as avocado¹⁸, mango¹⁸, papaya¹⁸, pineapple¹⁸, banana, plantain, and others.	Anthracnose (<i>Colletotrichum</i> spp.) Scab (<i>Sphaceloma persea</i>) Bacterial canker (<i>Xanthomonas campestris</i>) Sigatoka (<i>Mycosphaerella filiformis</i>) ²⁰
Other Crops	
Herbs and spices such as basil, thyme, coriander, dill, cilantro, parsley, mint, and others.	Powdery mildews (<i>Oidium</i> spp. and others) Downy mildews (<i>Peronospora</i> spp. and others) ⁷ Damping off diseases (<i>Rhizoctonia</i> , <i>Pythium</i> , <i>Alternaria</i> , and <i>Fusarium</i> spp.) Leaf spots (<i>Alternaria</i> , <i>Septoria</i> , <i>Colletotrichum</i> , and <i>Cercospora</i> spp.) ⁴ Bacterial diseases (<i>Erwinia</i> , <i>Xanthomonas</i> , and <i>Pseudomonas</i> spp.) Rusts (<i>Puccinia</i> spp. and others) "Damping off" and root or crown diseases caused by <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Pythium</i> , <i>Phytophthora</i> , and/or <i>Verticillium</i> spp. (see instructions below for "Soil application").
Coffee	Coffee berry disease (<i>Colletotrichum coffeanum</i>) ¹ Coffee rust (<i>Hemileia vastatrix</i>) ¹¹ Anthracnose (<i>Colletotrichum</i> spp.) Botrytis flower blight Cercospora leaf spot ²² and berry blotch ²² "Damping off" and root or crown diseases caused by <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Pythium</i> , <i>Phytophthora</i> , and/or <i>Verticillium</i> spp. (see instructions below for "Soil application").
Tobacco	Angular leaf spot (<i>Pseudomonas</i> spp.) Anthracnose (<i>Colletotrichum</i> and <i>Glomerella</i> spp.) Blue mold or downy mildew (<i>Peronospora</i> spp.) ² Brown spot (<i>Alternaria</i>) Barn spot/ frogeye leaf spot (<i>Cercospora nicotianae</i>) ¹⁰ Collar rot (<i>Sclerotinia sclerotiorum</i>) ² Gray mold (<i>Botrytis cinerea</i>) Powdery mildew (<i>Erysiphe cichoracearum</i>) Target spot (<i>Rhizoctonia solani</i>) See instructions below for "Soil application" against the following diseases: "Damping off," seedling blights, and root or crown diseases caused by <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Oididium</i> , <i>Phytophthora</i> , or <i>Verticillium</i> spp. Charcoal rot (<i>Macrophomina phaseolina</i>) Black root rot (<i>Thielaviopsis basicola</i>) Black shank (<i>Phytophthora</i> spp.) ² Southern blight/southern stem rot (<i>Sclerotium rolfsii</i>) ²

(continued)

CROPS	DISEASES/PATHOGENS (See footnotes for additional information)
Other Crops	
Mint	Rust (<i>Puccinia</i> spp.)
Hops	Powdery mildew (<i>Sphaerotheca macularis</i>) ²¹
<p>Footnotes: ¹Suppression only; for improved control mix or rotate with chemical fungicides approved for such use. ** NOT FOR USE IN CALIFORNIA ²Tank mix or rotate with copper-based fungicides at label rates for improved control. ³Apply at or immediately following planting (but before plant emergence) as a banded seedline treatment 4 to 6 inches wide. Make second application at thinning or cultivation in sufficient water and multiple nozzles to ensure thorough coverage of lower leaves and surrounding soil surface. Incorporation with light irrigation after application may improve disease control. Repeat at 10-14 day intervals if conditions promoting disease persist. ⁴For greasy spot suppression, apply at first new foliar flush and repeat with each new flush. Tank mix with spray oil or copper based fungicide at labeled rates. ⁵For suppression of citrus scab, start applications at first new foliage flush and repeat at petal fall and when fruit are 1/2 inch in diameter. ⁶Make first application at or before tight cluster if conditions favor disease development. Repeat at 7-10 day intervals through the second cover spray or longer on susceptible varieties or if environmental conditions favor rapid disease development. ⁷Begin applications before bloom when environmental conditions favor disease development, repeating at 7 to 14 day intervals or as needed. Control may be enhanced by addition of a surfactant to improve spray coverage. Use only surfactants known to be safe for use on the crop and for which such use is allowed. ⁸Rotate with antibiotics registered for fire blight control for improved performance. Begin applications at 1-5% open blossoms and repeat every 3-7 days as necessary until petal fall, when intervals can be increased to 7 days. Double Nickel™ LC can also be used in summer "cover spray" applications to control the shoot blight phase of fire blight and summer diseases. Can be mixed with copper fungicides to improve control. ⁹Make first application at popcorn stage and repeat every 7 days. ¹⁰Start applying at early bloom stage and repeat every 7 days through petal fall. ¹¹Pre-harvest applications in sufficient water to cover fruit or other harvested plant parts may improve control of postharvest infections. ¹²Begin applications at or before pistillate bloom, repeating every 7-10 days. Apply before rainfall if possible, and tank mix or rotate with a copper-based bactericide registered for such use for improved control. ¹³Start applications at or just before flowering and repeat every 7-10 days as needed through harvest. ¹⁴Apply before fall rains and again during dormancy before spring growth. ¹⁵Start applications when new shoots are 1/2 to 1 1/2 inches long. Repeat at 3-5 inches, 8-10 inches, and then at 7-10 day intervals until disease conditions no longer exist. ¹⁶Apply at bloom, before bunch closure, at veraison, and before harvest. ¹⁷Apply when shoots are 1/2 to 1 inch long and again when 6-8 inches long. ¹⁸Mix 2 fluid ounces Double Nickel™ LC per gallon of water and apply to pruning wounds. ¹⁹Apply at budbreak and repeat on 14-21 day interval as needed through harvest. ²⁰Apply at flowering and repeat on 14-21 day interval as needed through harvest. ²¹Apply at first appearance of leaves and repeat at 7-21 day intervals as needed, in sufficient water to obtain thorough coverage of foliage. Tank mix with spray oil or other registered fungicides for improved control. ²²Mix 6 to 10 fluid ounces Double Nickel™ LC per 100 gallons of water and apply in minimum of 20 gallons per acre from emergence to training, 50 gallons per acre from training to wire, and 100 gallons per acre from wire touch through harvest. ²³For treatment of horseradish or strawberry roots immediately before transplanting: immerse bare roots (individually or in bunches) for 10 seconds in a suspension of 1 to 2 pints Double Nickel™ LC per gallon of water.</p>	

Foliar application: For control of diseases on foliage, flowers, fruit, or other above-ground parts of plants: Mix Double Nickel™ LC in water and apply as a spray at a rate of 0.5 to 6 quarts of Double Nickel™ LC per acre in sufficient water to achieve thorough coverage of the crop canopy with minimal runoff. Begin applications at crop emergence, transplanting, or when conditions are conducive to development of disease. Repeat application every 3 to 10 days, or as needed, for as long as conditions favor disease development. Lower rates (0.5 to 3 quarts per acre) may be applied under light disease pressure, to smaller (e.g. newly-emerged) plants, or when Double Nickel™ LC is used in a tank mix with other fungicides whose labels allow such use. Under moderate to severe disease pressure, or when environmental conditions and plant stage are conducive to rapid disease development, use higher label rates (3-6 quarts/acre), apply more frequently (every 3-7 days), and mix or rotate Double Nickel™ LC with other fungicides for improved performance.

Soil application: For control of soilborne diseases infecting seeds, seedlings, roots, crown, stems, or other plant parts below ground or in contact with soil: Apply Double Nickel™ LC at 0.5 to 4.5 pints per acre. Mix the required amount in sufficient water to apply by one of the following methods:

- Soil drench applied to transplants in flats or pots in the greenhouse or nursery any time prior to transplanting (see additional drench instructions under "Nurseries, greenhouses, shade houses, and ornamental plants" below).
- Soil drench at transplanting, using a "water wheel" injector, spray nozzles/hoses, or other method to drench each root ball and/or planting hole.
- Soil or seedline drench, or banded spray (in-furrow) at planting. See the section on "Banded (in-furrow) application" below for additional instructions.

Follow-up (post-planting) preventative applications can be made every 2-4 weeks by one or more of the following methods, if needed:

- Drip (trickle) or any type of sprinkler irrigation, any time after planting or transplanting. See Chemigation Instructions for additional information.
- Spray directly onto the soil surface and/or lower plant parts. If targeting root disease, follow immediately with sufficient overhead sprinkler irrigation to move Double Nickel™ LC to the root zone.
- Injection directly into the rooting zone using shanks or similar equipment.

Lower rates (0.5 to 2 pints of Double Nickel™ LC per acre) may be applied under light disease pressure, to smaller plants, or when Double Nickel™ LC is used in a tank mix with other fungicides whose labels allow such use. Under moderate to severe disease pressure, or when environmental conditions and plant stage are conducive to

rapid disease development, use higher label rates (2 - 4.5 pints per acre), apply more frequently (every 2 weeks), and mix or rotate Double Nickel™ LC with other fungicides for improved performance.

Banded (in-furrow) application: Use the table below (rate Double Nickel™ LC per acre) to determine the correct application rate in fluid ounces per 1,000 row feet based on row spacing and desired rate per acre. Mix the required amount of Double Nickel™ LC in water and apply as banded spray (4" to 6" wide) or seedline drench centered over the planting furrow. Apply directly over seeds in the furrow just before they are covered with soil. The volume of water required per acre or per 1,000 row feet will depend on the application equipment used. Consult your local cooperative extension service if you need assistance calibrating band spraying equipment.

Rates for banded (in-furrow) application: Find desired application rate of Double Nickel™ LC per acre in the left column. Read across that line to the correct row spacing indicated at the top to find the number of fluid ounces per 1,000 row feet that will provide the desired application rate per acre.

Double Nickel™ LC rate/acre		Space between rows (inches)														
Pints	fl oz	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
0.5	8	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.6
0.75	12	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.8	0.8	0.9	0.9
1.0	16	0.4	0.4	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.9	1.0	1.0	1.1	1.2	1.2
1.25	20	0.5	0.5	0.6	0.7	0.8	0.8	0.9	1.0	1.1	1.1	1.2	1.3	1.4	1.5	1.5
1.5	24	0.6	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.7	1.9
1.75	28	0.6	0.7	0.8	1.0	1.1	1.2	1.3	1.4	1.6	1.6	1.7	1.8	1.9	2.0	2.1
2.0	32	0.7	0.8	1.0	1.1	1.2	1.3	1.5	1.6	1.7	1.8	2.0	2.1	2.2	2.3	2.4
2.25	36	0.8	1.0	1.1	1.2	1.4	1.5	1.7	1.8	1.9	2.1	2.2	2.3	2.5	2.6	2.8
2.5	40	0.9	1.1	1.2	1.4	1.5	1.7	1.8	2.0	2.1	2.3	2.4	2.6	2.7	2.9	3.1
2.75	44	1.0	1.2	1.3	1.5	1.7	1.9	2.0	2.2	2.4	2.5	2.7	2.9	3.0	3.2	3.4
3.0	48	1.1	1.3	1.5	1.7	1.8	2.0	2.2	2.4	2.6	2.8	2.9	3.1	3.3	3.5	3.7
3.25	52	1.2	1.4	1.6	1.8	2.0	2.2	2.4	2.6	2.8	3.0	3.2	3.4	3.6	3.8	4.0
3.5	56	1.3	1.5	1.7	1.9	2.1	2.4	2.6	2.8	3.0	3.2	3.4	3.6	3.9	4.1	4.3
3.75	60	1.4	1.6	1.8	2.1	2.3	2.5	2.8	3.0	3.2	3.4	3.7	3.9	4.1	4.4	4.6
4.0	64	1.5	1.7	2.0	2.2	2.4	2.7	2.9	3.2	3.4	3.7	3.9	4.2	4.4	4.7	4.9
4.25	68	1.6	1.8	2.1	2.3	2.6	2.9	3.1	3.4	3.6	3.9	4.2	4.4	4.7	4.9	5.2
4.5	72	1.7	1.9	2.2	2.5	2.8	3.0	3.3	3.6	3.9	4.1	4.4	4.7	5.0	5.2	5.5

Nurseries, greenhouses, shadehouses, and ornamental plants

Spray application: Mix 0.5 to 6 quarts of Double Nickel™ LC per 100 gallons of water and apply as a foliar spray of sufficient volume to wet the entire plant with minimal runoff. Begin preventative applications at plant emergence and repeat every 3-28 days as needed (every 3-7 days if disease pressure is high or environmental conditions are highly favorable to disease outbreak, 10-28 days under low pressure or less conducive conditions).

Drench application: Mix 0.5 to 4.5 pints of Double Nickel™ LC per 100 gallons of water and apply as a drench or coarse spray to soil or other growing media in pots, flats, plugs, trays, or planting beds, for control or suppression of soilborne diseases of seedlings, cuttings, bedding plants, and transplants (including vegetables and other transplanted food crops). Make first application at or immediately before seeding, sticking, germination, or transplanting. Repeat applications every 14-28 days as needed. Transplants can be treated immediately before transplanting into field soils to protect against damping-off and other diseases that reduce plant establishment.

Cutting or root dip: Dip basal end of cuttings or bare roots (individually or in bunches) in a suspension of 1 to 2 pints of Double Nickel™ LC per gallon of water. Immerse for 5-10 seconds immediately before planting.

Chemigation: Mix 0.5 to 4.5 pints of Double Nickel™ LC per 100 gallons of water and apply via drip, handheld, or sprinkler irrigation systems. Refer to "Chemigation instructions" for more details.

CROPS/USE SITES	DISEASES/PATHOGENS
Indoor, outdoor, and shade- or other cover-grown ornamental trees and shrubs, flowering plants, foliage plants, tropical plants, potted plants, potted or cut flowers, bedding plants, forestry seedlings, conifer production for reforestation, fruit trees, vegetables and other crops grown in greenhouses or nurseries.	Powdery mildews caused by <i>Erysiphe</i> , <i>Podosphaera</i> , <i>Sphaerotheca</i> , <i>Oidium</i> , and <i>Golovinomyces</i> spp.
	Anthrachnose (<i>Colletotrichum</i> spp.)
	Bacterial leaf spots caused by <i>Erwinia</i> , <i>Pseudomonas</i> , and <i>Xanthomonas</i> spp.
	Damping-off disease (<i>Rhizoctonia</i> , <i>Pythium</i> , <i>Fusarium</i> spp.)
	Late blight, blackeye, and root rots caused by <i>Phytophthora</i> spp.
	Gray mold and blight caused by <i>Botrytis cinerea</i>
	Black root rot (<i>Aspergillus</i> spp.)
	Black spot of roses (<i>Diplocarpon rosae</i>)
	Downy mildew (<i>Peronospora</i> spp.)
	Leaf spots caused by <i>Alternaria</i> , <i>Septoria</i> , <i>Cercospora</i> , <i>Entomosporium</i> , <i>Helminthosporium</i> , and <i>Myrothecium</i> spp.)
	Rust (<i>Puccinia</i> spp.)
	Scab (<i>Venturia</i> spp.)
	Root rot, bottom rot, or stem rot caused by <i>Rhizoctonia solani</i>
	<i>Sclerotinia</i> blight
	<i>Fusarium</i> wilts

Turfgrass application

For control of foliar diseases, apply Double Nickel™ LC at 1 to 4 fluid ounces per 1,000 square feet as a ground-directed spray in sufficient water to provide thorough coverage. To control root and crown diseases in or on the soil, immediately follow the spray with sufficient overhead sprinkler irrigation to move the product into the root zone.

CROPS/USE SITES	DISEASES/PATHOGENS
Turf, sod, lawns, golf course (fairways, roughs, greens, tees), grass seed production Including but not limited to: Bluegrass, Bentgrass, Bermudagrass (common & hybrid), Dichondra, Fescue, Orchardgrass, Poa annua, St. Augustine grass, Ryegrass, Zoysia, mixtures, and other grasses or ornamental turf	Anthraxnose (<i>Colletotrichum graminicola</i>) Brown patch (<i>Rhizoctonia solani</i>) Dollar spot (<i>Lanzia and Moellerodiscus</i> spp., formerly <i>Sclerotinia homeocarpa</i>) Powdery mildew (<i>Erysiphe graminis</i>) Rust (<i>Puccinia</i> spp.) Gray leaf spot (<i>Pyricularia grisea</i>) "Damping off" or seedling blights caused by <i>Pythium</i>

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses. Keep unprotected persons out of treated areas until sprays have dried.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage: Store in a dry area inaccessible to children. Store in original containers only. Keep container closed when not in use.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of onsite or at an approved waste disposal facility.

Container Handling: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling, if available or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

CHEMIGATION INSTRUCTIONS

General Information:

Apply this product only through drip (trickle) irrigation (including micro-irrigation through spaghetti tubes or individual tubes) or sprinkler irrigation (including impact or microsprinklers, microjet, overhead boom, water gun, solid set, lateral move, end tow, side-roll, center pivot, or hand move, including mist-type systems); or with hand-held calibrated irrigation equipment (such as a hand-held wand with injector). Do not apply this product through any other type of irrigation system.

Crop injury or lack of effectiveness can result from non-uniform distribution of treated water.

If you have questions about calibration, contact State Extension Service specialists, equipment manufacturers or other experts.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection.

The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and con-

nected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and injector system and flush with clean water before use. Failure to provide a clean tank, free of scale or residues may reduce effectiveness of this product.

Drip (trickle) and micro-irrigation chemigation

1. The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump such as a positive displacement injection pump (i.e., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Dilute the product in water following the label mixing directions. It may be premixed in a supply tank with water, fertilizer, or other appropriate tank-mixed agricultural chemicals. Agitation is necessary. Apply to moderately moist soils. Use volumes that thoroughly wet the soil but that do not cause significant runoff or excessive drip from pots. Application should be continuous in sufficient water to apply the recommended rate evenly to the entire treated area.

Sprinkler chemigation:

1. The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, such as a positive displacement injection pump (i.e., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Dilute the product in water following the label mixing directions. It may be premixed in a supply tank with water, fertilizer or other appropriate tank-mixed agricultural chemicals. Agitation is necessary. Apply to moderately moist soils. Use volumes that thoroughly wet the soil but that do not cause significant runoff or excessive drip from pots. Application should be continuous in sufficient water to apply the recommended rate evenly to the entire treated area.
8. Do not apply when wind speed favors drift beyond the area intended for treatment.

WARRANTY

Certis USA, L.L.C. warrants that the material contained herein conforms to the description on the label and is reasonably fit for the purpose referred to in the directions for use. Timing and method of application, weather, watering practices, nature of soil, the disease problem, condition of the crop, incompatibility with other influencing factors in the use of this product are beyond the control of the seller. To the extent consistent with applicable law, buyer assumes all risks of use, storage, or handling of this material not in strict accordance with directions given herein. NO OTHER EXPRESS OR IMPLIED WARRANTY OF THE FITNESS OR MERCHANTABILITY IS MADE.

www.certisusa.com

CERTIS

225



By Courier

December 31, 2012

Sheryl K. Reilly, Ph.D.
Acting Branch Chief, Microbial Pesticide Branch
Biopesticides & Pollution Prevention Division (7504P)
Office of Pesticide Programs
US Environmental Protection Agency

Re: CX-9032/EPA Registration Number 70051-107/Fast-Track Amendment Submission

Dear Dr. Reilly:

On behalf of Certis U.S.A. L.L.C., (9145 Guilford Road, Suite 175, Columbia, Maryland 21046), I am respectfully submitting the following information to support the amendment for CX-9032:

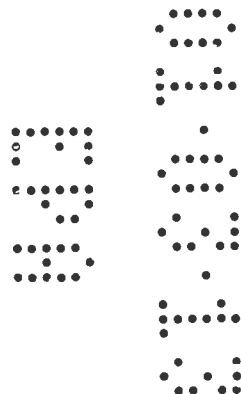
- EPA Form 8570-1 – Application for Pesticide
- Three copies (3) of the revised label
- Copy of the label with highlighted changes
- EPA stamped Notification Label

This label amendment consists of the addition of certain food crops to the EPA stamped accepted food crop sub-label of CX-9032 Master Label. Application rates are within the ranges previously reviewed and accepted by EPA. There are no changes to the First Aid or Precautionary Statements, Personal Protective Equipment (PPE) or Worker Protection required text, or Re-entry Interval (REI) language.

Please do not hesitate to contact me if you have any questions about this submission. I can be reached by email at cdively@certisusa.com or telephone at 301-483-3806.

Sincerely,


Christine A. Dively
Director of Regulatory Affairs
Certis USA



Certis USA
9145 Guilford Road
Suite 175
Columbia, MD 21046

(301) 604-7340

Fax: 301-604-7015
www.certisusa.com



January 3, 2013

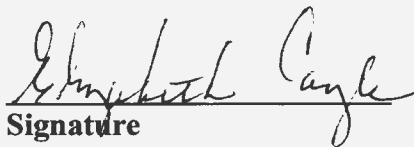
RECEIPT

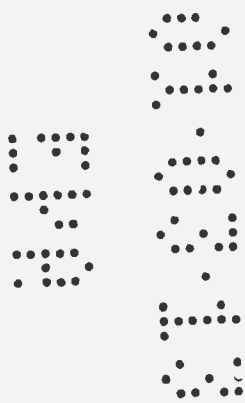
Address: U.S. Environmental Protection Agency
Office of Pesticide Programs
Biopesticides and Pollution Prevention Division (7504P)
Room S-4900, One Potomac Yard
2777 South Crystal Drive
Arlington, VA 22202-4501

Attn: Sheryl K. Reilly, Ph.D.
Acting Branch Chief, Microbial Pesticide Branch

RE: CX-9032/EPA Registration Number 70051-107/
Fast-Track Amendment Submission

Mail Enclosures Received by:


Signature


1/3/2013 1:10 PM
Date and Time

 — JAN 03 2013 



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

January 10, 2013

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

CHRISTINE A. DIVELY
CERTIS USA, LLC
9145 GUILFORD ROAD, SUITE 175
COLUMBIA, MD 21046

PRODUCT NAME: CX-9032
COMPANY NAME: CERTIS USA, LLC
OPP IDENTIFICATION NUMBER:
EPA FILE SYMBOL: 70051-107
EPA RECEIPT DATE: 01/03/13

SUBJECT: RECEIPT OF AMENDMENT

DEAR REGISTRANT:

The Office of Pesticide Programs has received your application for an amendment and it has passed an administrative screen for completeness.

During the initial screen we determined that the application appears to qualify for fast track review. The package will now be forwarded to the Product Manager for review to determine its acceptability for fast track status.

If you have any questions, please contact Biologicals & Pollution Prevention Division, PM Team 92, at (703) 305-7175.

Sincerely,

A handwritten signature in black ink, appearing to be "Sof" or similar, is written over a horizontal line.

Front End Processing Staff
Information Services Branch
Information Technology & Resources Management Division

Fee for Service

{928844E~

This package includes the following

☐ New Registration

☒ Amendment

☐ Studies? ☐ Fee Waiver?

☐ volpay % Reduction: ____

for Division

☐ AD

☒ BPPD

☐ RD

Risk Mgr. 92

Receipt No.

S-

928844

EPA File Symbol/Reg. No.

70051-107

Pin-Punch Date:

1/3/2013

☒ This item is NOT subject to FFS action.

Action Code:

Requested:

Granted:

Amount Due: \$ _____

Parent/Child Decisions:

☐ Inert Cleared for Intended Use

☐ Uncleared Inert in Product

Reviewer:

Shannon Borges

Date:

1/10/13

Remarks:



United States
Environmental Protection Agency
Washington, DC 20460

☐ Registration
☒ Amendment
☐ Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number 70051-107	2. EPA Product Manager Sheryl Reilly	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) CX-9032	PM# MPB	
5. Name and Address of Applicant (Include ZIP Code) Certs U.S.A. L.L.C. 9145 Guilford Road, Suite 175 Columbia, Maryland 21046 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

Section - II

<input checked="" type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Addition of crops and corresponding use directions. No change to formulation, REI, Worker Protection language, First Aid or other Precautionary Statements text or Storage and Disposal Statements.

Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Metal	
				<input type="checkbox"/> Plastic	
				<input type="checkbox"/> Glass	
				<input checked="" type="checkbox"/> Paper	
				Other (Specify) _____	
* Certification must be submitted		If "Yes" Unit Packaging wgt.	No. per container	If "Yes" Package wgt	No. per container
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 2.5 gal/250 gal		5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product	
6. Manner in Which Label is Affixed to Product		<input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled		<input checked="" type="checkbox"/> Other _____	

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)			
Name Christine A. Dively	Title Director of Reg. Affairs	Telephone No. (Include Area Code) 301-483-3806	
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.			6. Date Application Received (Stamped)
2. Signature 	3. Title Director of Reg. Affairs		
4. Typed Name Christine A. Dively	5. Date December 28, 2012		

CERTIS

October 24, 2012

RECEIPT

Address: U.S. Environmental Protection Agency
Office of Pesticide Programs
Document Processing Center
Biopesticides & Pollution Prevention Division (7504P)
Room S-4900, One Potomac Yard
2777 South Crystal Drive
Arlington, VA 22202-4501

Attn: Ms. Susanne Cerelli, BPPD

RE: Certis U.S.A. L.L.C. Co No.: 70051
Notification of Addition of Text Required by CADPR
CX-9032; EPA Reg. No.:70051-107 Double Nickel LC

Mail Enclosures Received by:



Signature

10/24/12 1:10

Date and Time



June 15, 2012

Subject: Storage Stability and Corrosion Characteristics Data Submission (MRID 48803901)

EPA Reg. No. : 70051-107

Product name: CX-9032

Decision No.: 464420

Submission No: S915463

Note to the File:

The study that was submitted on April 18, 2012, MRID 48803901, adequately addresses the terms of registration regarding Storage Stability and Corrosion Characteristics data requirements.

The Storage stability data indicate that the product is stable with no significant degradation when the product is stored for 12 months at 4°C and 25°C.

The corrosion characteristic observations indicate that CX-9032 does not, perforate, darken or cause leaking at the seam of HDPP bottles twelve months in storage at 4 and 25°C.

Final Printed labels were submitted on March 22, 2012 for EPA Reg. No. : 70051-107

All terms identified in the December 16, 2011 Unconditional Registration Notice for this product have been fulfilled.

Susanne Cerrelli
Regulatory Action Leader

INERT CLEARANCE STATUS FORM

Reviewer Name: Tracy Jackson			Request Date: 8/4/10		
Tel 703-308-7227	ISB	CUBE: S-6953	MAIL CODE: 7502p		

A. COMMENTS:

There is an issue with one of the inerts on both the Alternate and Basic Confidential Statement of Formula
--

B. PESTICIDE PRODUCT INFORMATION:

Receipt Number: 879169	Date on CSF: July 9, 2010	Food-Use Pesticide: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
EPA Reg. No/File Symbol: 70051-RNT	Formulation: Basic and Alternate	
Product Name: CX-9032		

C. INGREDIENT INFORMATION:

Ingredient No.1	Tolerance Exemption(s) ¹					
	910	920	930	940	950	960
Chem. Name:						
Trade Name:						
CAS Reg. No.:						
Comments: Based on the compositional information in the Agency's proprietary inert mixture database, there are one or more inert ingredients in a (surfactant) for which data protection rights have been asserted and for which the Agency must ensure such rights are protected in the pesticide registration process. In order for the Agency to make a determination as to the acceptability of this proprietary mixture for use as an inert ingredient in food use pesticide formulations, further documentation is required from the manufacturer. The product manufacturer can get specific information on the chemicals in question and the documentation required to determine acceptability for data compensation by contacting the Inert Ingredient Assessment Branch at InertsBranch@epamail.epa.gov						

Ingredient No. 2

Chem. Name:						
Trade Name:						

¹Language from the Code of Federal Regulations (40 CFR 180, subpart D):

40 CFR 180.910: Inert ingredients used pre- and post-harvest; 40 CFR 180.920: Inert ingredients used pre-harvest; 40 CFR 180.930: Inert ingredients applied to animals; 40 CFR 180.940: Tolerance exemptions for active and inert ingredients for use in antimicrobial formulations; 40 CFR 180.950: Tolerance exemptions for minimal risk active and inert ingredients; and 40 CFR 180.960: Polymers.

CAS Reg. No.:						
Comments:						

Reviewer Name: Tracy Jackson

Review Date: 8/4/10

CHEMICAL NAME/PESTICIDE CHEMICAL CODE (PCC)

REQUEST FORM

CR# 10-290

REQUESTOR NAME: SUSANNE CERRELLI		Request date: 6/11/10	
Tel: 703-308-8077	ORG.: BPPD	CUBE: 58925	MAIL CODE: 7511P

CSF ATTACHED:

- ☐ YES If CSF is attached complete Item A and the chemical name in item C.
☒ NO If CSF is not attached complete Item A through C.

A. INFORMATION REQUIRED:

- ☒ Check Applicable Category
☐ Provide PCC and Tolerance Exemption Status For Food-Use Inert ingredient (s).
☐ Provide PCC for Non-Food Use inert Ingredient (s).
☐ Provide PCC for Active Ingredient (s).
☐ Provide PCC for Dye.
☐ Determine if Fragrance is Acceptable for Use In Formulation.
☐ Other (Describe): _____

B. PESTICIDE PRODUCT INFORMATION:

EPA Reg. No/File Symbol: 70051-RNA	Product Name: [REDACTED]
Registrant: Cert's	Food-Use Pesticide: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Percent in Formulation (For Fragrance /Dyes)	

C. INGREDIENT INFORMATION:

Ingredient No.1

see sheet

INFORMATION REPORTED:

Chem. Name:	PCC: ~ [REDACTED]
Trade Name:	TOL. STATUS: 40 CFR 180.950
CAS Reg. No.:	OTHER INF.:

Ingredient No.2:

Chem. Name:	PCC:
Trade Name:	TOL. STATUS:
CAS Reg. No.:	OTHER INF.:

Ingredient No.3

Chem. Name:	PCC:
Trade Name:	TOL. STATUS:
CAS Reg. No.:	OTHER INF.:

Ingredient No.4:

Chem. Name:	PCC:
Trade Name:	TOL. STATUS:
CAS Reg. No.:	OTHER INF.:

Completed By: S. Rock

Date Completed: 6/11/10

Inert ingredient information may be entitled to confidential treatment

